

#09- STRUCTURE

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A. CODES AND STANDARDS

1. INTERNATIONAL BUILDING CODE 2003 (IBC 2003).
a. 2005 CONNECTICUT SUPPLEMENT
b. 2009 AMENDMENT TO 2005 CT SUPPLEMENT
2. ASCE 7 (Formerly ANSI A58.1) 2002 EDITION
3. ACI 318 - 02
4. AISC MANUAL OF STEEL CONSTRUCTION, ASD 9TH ED, LRFD 3RD ED
5. SJI STANDARD SPECIFICATIONS, 43RD EDITION
6. AWS Current Edition.
7. ASTM Current Edition.
8. UL Current Edition.

B. DESIGN LIVE LOADS

1. LIVE LOADS
- | | |
|---------------------------------------|----------------------------------------------|
| OFFICES | 80 PSF + 20 PSF (PARTITIONS) |
| MECHANICAL/MACHINE ROOM (MINIMUM) | 150 PSF |
| AT BUILDING ROOF | NOTED EQUIPMENT WEIGHT + 40 PSF |
| CORRIDORS, RESTROOMS | 100 PSF |
| LOBBIES, AUDITORIUMS, STAIRS, TERRACE | 100 PSF |
| STORAGE LIGHT | 125 PSF |
| ROOF (MINIMUM + SNOW AND SNOW DRIFT) | 35 PSF(MIN.) U.O.N. |
| FORKLIFT ON S.O.G. | 4100 LBS MAX PER AXLE |
| BUS PARKING | GREATER EFFECT OF AASHTO HS20-44 AND 150 PSF |

2. SNOW LOADS
- | | |
|------------------------|-------------|
| GROUND SNOW LOAD | Pg = 35 PSF |
| SNOW EXPOSURE FACTOR | Ce = 1.0 |
| SNOW IMPORTANCE FACTOR | I = 1.1 |
| SNOW THERMAL FACTOR | Ct = 1.0 |
| FLAT ROOF SNOW LOAD | Pf = 32 PSF |
| DRIFTING SNOW | PER ASCE 7 |

3. LATERAL LOADS
- i. Wind Loads per IBC 2003 / ASCE 7
- | | |
|-------------------------------------|---------------------------|
| Basic Wind Speed (3 sec. Gust) | 100 MPH |
| Wind Importance Factor, Iw | 1.15 |
| Occupancy Category | III |
| Wind Exposure | C |
| Internal Pressure Coefficient | +0.18 |
| Components & Cladding Wind Pressure | Varies, Conform to ASCE 7 |

ZONE	10 SF	20 SF	50 SF	100 SF	500 SF
1	28	27	26		
2	46	41	35	30	
3	59	56	42	30	
4	30	29	27	26	23
5	37	35	32	29	23

NOTE:

FM GLOBAL DATA SHEET 1-28 PERMITS 95MPH WIND IN THIS LOCATION. COMPONENTS AND CLADDING PRESSURE SHOWN ARE WORST CASE OF ASCE REQUIREMENTS @ 100 MPH AND FM GLOBAL REQUIREMENTS @ 95 MPH

- ii. Seismic Loads per IBC 2003 / ASCE 7
- | | |
|------------------------------------------------------------------------------------------|------------------------------------|
| Occupancy Category | III |
| Seismic Importance Factor | I = 1.25 |
| Mapped spectral response accelerations | Ss = 0.252
S1 = 0.065 |
| SITE CLASS | D |
| Spectral response coefficients | Sds = 0.265
Sd1 = 0.104 |
| Seismic Design Category | B |
| Basic Seismic Resisting System | |
| Employee Parking Level - Ordinary Reinforced Concrete Shear Walls, R=5 Allowed R=3 Used | |
| First Floor And Above - Steel Frame Not Specifically Detailed For Seismic Resistance R=3 | |
| Analysis Procedure | Equivalent Lateral Force Procedure |
| Allowable Story Drift | 0.015 Inx |

- iii. Deflection limits maximum story drift from wind loads H/400
4. NO PART OF THE BUILDING SHALL BE USED AS A STAGING AREA RESULTING IN A LOAD (UNDER THE LIMITED LOADED AREA) THAT EXCEEDS THE DESIGN LIVE LOAD.
5. FOR WIND DESIGN OF THE CLADDING SYSTEMS, THE HIGH PRESSURE CORNER ZONE DIMENSIONS MUST BE CALCULATED BASED ON THE OVERALL BUILDING DIMENSIONS BUT SHALL APPLY TO ALL THE CORNERS (OUTSIDE AND INTERMEDIATE) OF THE BUILDING.

C. GENERAL

1. ALL DETAILS, SECTIONS, AND NOTES SHOWN ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.
2. DO NOT SCALE DRAWINGS. NON STRUCTURAL ELEMENTS SHOWN MAY NOT BE TO SCALE UNLESS THEY ARE DIMENSIONED
3. NO CHANGE IN SIZE, DIMENSIONS OR POSITION OF STRUCTURAL ELEMENTS SHALL BE MADE, NOR SHALL ANY OPENINGS OR SLEEVES BE PERMITTED THROUGH ANY STRUCTURAL ELEMENT, WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD. UNLESS THEY ARE DETAILED AND SPECIFICALLY NOTED AS CHANGES TO THE CONTRACT DOCUMENTS ON THE STRUCTURAL SHOP DRAWINGS. PROVIDE SEPARATE SHOP DRAWINGS INDICATING ALL PENETRATIONS THROUGH STRUCTURAL ELEMENTS FOR APPROVAL PRIOR TO THE SUBMISSION OF SHOP DRAWINGS FOR THE AFFECTED STRUCTURAL ELEMENTS.
4. CONSULT ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, DRIPS, REVEALS, FINISHES, DEPRESSIONS, DOORS, AND OTHER SUCH PROJECT REQUIREMENTS NOT SHOWN ON STRUCTURAL DRAWINGS.
5. PROVIDE ANY ADDITIONAL COMPONENTS NEEDED TO ACCOMMODATE THE INSTALLATION OF EQUIPMENT OF ANY NATURE. COORDINATE SUCH WORK WITH THE EQUIPMENT SUPPLIER. INCORPORATE SUCH REFINEMENTS ON THE SHOP DRAWINGS, AND OBTAIN THE EQUIPMENT SUPPLIER'S APPROVAL (CLEARLY DISPLAYED ON SHOP DRAWINGS) PRIOR TO SUBMITTING THE SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER FOR APPROVAL.
6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED TO PROPERLY CONSTRUCT THE BUILDING.
7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING CONSTRUCTION AND/OR SUBMITTING SHOP DRAWINGS FOR APPROVAL. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER.
8. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT EXISTING AND NEW UTILITIES AND SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE DURING CONSTRUCTION.
9. ALL HANGERS FOR MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT SHALL BE CONNECTED TO THE CONCRETE STRUCTURE USING SHALLOW-SET DROP-IN ANCHORS. COORDINATE ANCHOR LOCATIONS WITH PT TENDONS.
10. ABOVE GROUND FLOOR, ALL HANGERS FOR MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT SHALL BE ATTACHED TO STEEL BEAMS AND JOISTS ONLY. SEE IN301 FOR JOIST REINFORCING AT LOAD POINTS. UNLESS OTHERWISE NOTED ON THE STRUCTURAL DRAWINGS, THE HANGERS SHALL BE LOCATED TO PRODUCE AN EQUIVALENT UNIFORM LOAD OF LESS THAN 10 PSF.
11. SHOP DRAWINGS FOR HANGER TYPE AND LAYOUT AT AREAS ABOVE MECHANICAL ROOMS SHALL BE SUBMITTED TO STRUCTURAL ENGINEER FOR APPROVAL.
12. LOCATION AND SIZES OF OPENINGS AND COREDRILLS THROUGH ALL STRUCTURAL ELEMENTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. SUBMIT COORDINATION DRAWINGS SHOWING ALL REQUIRED OPENINGS AND PATH OF PT CABLES FOR S.E.R. REVIEW.
13. CONTRACTOR SHALL DETECT EXISTING STRANDS AND REBAR LOCATIONS BEFORE STARTING ANY DRILLING OR SAWING ON STRUCTURAL REINFORCED CONCRETE ELEMENTS AND INFORM THE ARCH./ENG. OF ANY NECESSARY MODIFICATION BEFORE STARTING DRILLING OR FABRICATION.

D. EARTHWORK

1. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR SHORING AND BRACING OF THE BUILDING EXCAVATION EMBANKMENT INCLUDING THE EXCAVATION FOR UTILITIES AND FOUNDATIONS, AND IS ALSO FULLY RESPONSIBLE FOR THE DESIGN AND PERFORMANCE OF SHORING AND BRACING DURING CONSTRUCTION.
2. CONTRACTOR SHALL COORDINATE THE EXTENT OF THE EXCAVATION, SHORING AND BRACING WITH CIVIL DRAWINGS. CONTRACTOR SHALL ALSO REFER TO CIVIL DRAWINGS, SPECIFICATIONS AND GEOTECHNICAL REPORT FOR DETERMINING THE STABILITY OF SLOPES AND RELATED INFORMATION NOT COVERED IN THE STRUCTURAL DRAWINGS.
3. EARTHWORK COMPACTION SHALL BE IN ACCORDANCE WITH THE CIVIL DRAWINGS AND SPECIFICATIONS AS WELL AS WITH THE GEOTECHNICAL REPORT PREPARED BY HALEY & ALDRICH, INC.
4. BACKFILL AGAINST EXTERIOR WALLS MAY NOT BE PLACED HIGHER THAN 4'-0" ABOVE SLAB ON GRADE BEFORE STRUCTURAL 1ST FLOOR SLAB IS IN PLACE.

E. FOUNDATION

1. THE BUILDING FOUNDATION SYSTEM IS SPREAD FOOTINGS DESIGNED TO AN ALLOWABLE BEARING PRESSURE OF 4000 PSF. SIGNIFICANT REMOVAL OF EXISTING UNSUITABLE MATERIAL WILL BE REQUIRED, SEE GEOTECHNICAL REPORT.
2. GEOTECHNICAL REPORT DATED 03 MAY 2013 HAS BEEN PREPARED BY HALEY & ALDRICH, INC. REPORT IS INCLUDED IN PROJECT SPECIFICATIONS FOR REFERENCE ONLY.
3. GENERAL CONTRACTOR AND/OR CONSTRUCTION MANAGER MUST REVIEW THE REPORT PRIOR TO BIDDING AND CONSTRUCTION AND MUST CLARIFY ANY AND ALL QUESTIONS WITH GEOTECHNICAL ENGINEER.
4. STRUCTURAL FILL UNDER BUILDING ELEMENTS AND BACKFILL ON SITE SHALL BE IN ACCORDANCE WITH GEOTECHNICAL REPORT RECOMMENDATIONS.
5. ALL EARTHWORK CONSTRUCTION SHOULD BE INSPECTED BY A TESTING AGENCY EXPERIENCED IN SIMILAR WORK. THE TESTING AGENCY SHOULD MONITOR ALL FOUNDATION CONSTRUCTION, PERFORM BEARING CAPACITY VERIFICATION TEST, PERFORM FIELD DENSITY TESTS AND THE NECESSARY LABORATORY TESTING TO APPROVE FILL AND BACKFILL MATERIALS. INSPECTIONS AND TESTING SHOULD BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER EXPERIENCED IN GEOTECHNICAL ENGINEERING.
6. PENETRATIONS THROUGH SLAB ON GRADE LARGER THAN 4 SF OR ADJACENT TO PERIMETER WALLS MUST BE APPROVED BY S.E.R.

F. CONCRETE

1. ALL CONCRETE SHALL BE CONTROLLED CONCRETE, NORMAL WEIGHT (UNLESS OTHERWISE NOTED) WITH COMPRESSIVE STRENGTH AS FOLLOWS:
- | | |
|--------------------------------|----------------|
| FOOTINGS, GRADE BEAMS | F'c = 4000 PSI |
| SLAB ON GRADE | F'c = 4000 PSI |
| RETAINING WALLS + COLUMNS | F'c = 4000 PSI |
| CURBS & EQUIPMENT PADS LT. WT. | F'c = 4000 PSI |
| PT SLAB AND BEAMS | F'c = 5000 PSI |
- ALL LIGHT WEIGHT (L.T. W.T.) CONCRETE TO BE 110 + 5 PCF
USE PEA GRAVEL CONCRETE AS REQUIRED FOR PROPER CONSOLIDATION & COVERAGE IN THIN-SET AREAS
2. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATES. HOPPERS, VERTICAL CHUTES, OR TRUNKS SHALL BE USED IN SUFFICIENT NUMBERS SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED SIX FEET AND TO ENSURE THAT THE CONCRETE IS KEPT LEVEL AT ALL TIMES.
3. BEFORE FRESH CONCRETE IS POURED AGAINST CONCRETE IN PLACE, THE CONTACT SURFACES OF CONCRETE IN-PLACE SHALL BE ROUGHENED TO 1/4" MIN. AMPLITUDE, THOROUGHLY CLEANED, ALL LAITANCE SHALL BE REMOVED AND THE CONTACT SURFACES SHALL BE THOROUGHLY SLOSHED WITH GROUT CONSISTING OF ONE PART SAND TO ONE PART CEMENT WITH A MINIMUM AMOUNT OF WATER.
4. ALL KEYS SHALL BE 2" X 4" (NOMINAL) UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
5. SLABS ON GRADE SHALL BE CAST IN SECTIONS HAVING A MAXIMUM AREA OF 7500 S.F. AND A MAXIMUM LENGTH OF 150 FT. SUBMIT SHOP DRAWINGS INDICATING CONSTRUCTION AND CONTROL JOINTS FOR A/E APPROVAL.
6. CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POUR IS COMPLETED.
7. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CONCRETE EDGES UNLESS OTHERWISE NOTED ON ARCHITECTURAL PLANS AND SPECIFICATIONS.
8. IN FIRE-RATED ASSEMBLIES, GAPS BETWEEN M/E/P ITEMS AND EDGE OF SLEEVE SHALL BE FILLED WITH FIRE RATED MATERIAL PER UL APPROVED ASSEMBLY WITH A RATING EQUIVALENT TO THE ADJACENT FLOOR CONSTRUCTION.
9. CONDUITS IN CONCRETE SLABS SHALL BE SPACED SUCH THAT THE CENTER TO CENTER DISTANCE BETWEEN CONDUITS IS A MINIMUM OF THREE TIMES THE OUTSIDE DIAMETER OF THE LARGEST CONDUIT. CONDUITS HAVING OUTSIDE DIAMETER LARGER THAN ONE THIRD OF THE SLAB THICKNESS SHALL NOT BE PERMITTED. CONDUITS THAT CROSS EACH OTHER IN SLAB SHALL NOT CONSUME MORE THAN ONE THIRD OF THE SLAB THICKNESS AT POINT OF INTERSECTION.
10. ALUMINUM CONDUITS ARE NOT PERMITTED IN CONCRETE ELEMENTS.
11. CONCRETE FILL IN SLAB DEPRESSIONS SHALL BE REINFORCED WITH MIN. 16 OZ./CY OF A SYNTHETIC MICROFIBER MEETING PROJECT SPECIFICATIONS.

G. REINFORCING STEEL

1. ALL REINFORCING STEEL, INCLUDING STIRRUPS AND TIES, SHALL BE HIGH STRENGTH, NEW BILLET STEEL CONFORMING TO ASTM DESIGNATION A-615 GRADE 60 (Fy = 60,000 PSI). ALL REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A-706 GRADE 60.
2. ALL REINFORCING BARS, DOWELS, AND W.W.F. IN SLABS ON GRADE (INCLUDING TURN DOWNS, ETC.) USED FOR VEHICULAR TRAFFIC, PARKING, AND MECHANICAL ROOMS SHALL BE EPOXY COATED AS PER ASTM A-775 WITH A COAT THICKNESS OF 10 MILS MINIMUM.
3. U.O.N. ON STRUCTURAL DRAWINGS, PROVIDE MINIMUM CONCRETE PROTECTION FOR REINFORCING, AS FOLLOWS:
- | | |
|----------------------------------|--------|
| CAST AGAINST EARTH | 3" |
| EXPOSED TO EARTH OR WEATHER: | |
| #5 AND SMALLER BARS AND W.W.F. | 1-1/2" |
| #6 AND LARGER BARS | 2" |
| NOT EXPOSED TO EARTH OR WEATHER: | |
| SLABS AND WALLS: | |
| #11 AND SMALLER BARS AND W.W.F. | 3/4" |
| #14 AND LARGER BARS | 1-1/2" |
| BEAMS, COLUMNS AND PEDESTALS: | 1-1/2" |
4. WHERE CONSTRUCTION JOINTS ARE PROVIDED IN STRUCTURAL SLABS, THE REINFORCING MUST PASS UNINTERRUPTED THROUGH THE JOINT AND ADDITIONAL #4@12 X 4'-0" LONG DOWELS MUST BE PROVIDED PERPENDICULAR TO JOINT. IN SLAB ON GRADE DISCONTINUE REINF. AND PROVIDE DOWELS AS NOTED.
5. W.W.F. SHALL HAVE ENDS LAPPED ONE FULL PANEL PLUS 2" ON ALL SIDES, WITH SPLICES WIRE TIED.
6. ALL WELDING OF REINFORCING SHALL BE DONE BY CERTIFIED WELDERS WITH E90XX ELECTRODES IN ACCORDANCE WITH AWS SPECIFICATIONS D1.4.
7. ANY MECHANICAL SPLICES USED MUST BE "TENSION-COMPRESSION" TYPE AND SHALL COMPLY WITH ACI-318-05 12.14.3, UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. SHOP DRAWINGS SUBMITTED FOR STRUCTURAL ENGINEER'S APPROVAL MUST INDICATE THE USE AND THE TYPE OF ANY MECHANICAL SPLICES USED.

H. FORMWORK

1. ALL FORMWORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE'S FORMWORK FOR CONCRETE, SPECIAL PUBLICATION NO.4 AND ACI'S STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI-347, LATEST EDITION). SEE SPECIFICATION SECTION 03310 FOR FORMWORK REQUIREMENTS.
2. ALL FORMWORK AND SHORING DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR.
3. FORMWORK AND SHORING DRAWINGS TOGETHER WITH CERTIFICATION FOR THE DESIGN FROM A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT, SHALL BE SUBMITTED TO THE ARCHITECT, STRUCTURAL ENGINEER, AND LICENSING DEPARTMENT OFFICIAL FOR REVIEW.

J. STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
- ALL W SHAPES AND TEES: ASTM A-572 GRADE 50 OR A-992 (FY=50 KSI).
ALL ANGLES & PLATES AND CHANNELS: ASTM A-36.
- ALL STEEL TUBES: ASTM A-500 GRADE B.
MILL TEST REPORTS FOR ALL ELEMENTS MUST BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR THE RECORD.
2. HIGH STRENGTH STEEL BOLTS SHALL CONFORM TO ASTM A-325 OR A-490. ANCHOR BOLTS SHALL CONFORM TO ASTM A-1554, GRADE 36 U.O.N.
3. STEEL CONNECTIONS:
- a. ALL CONNECTIONS SHALL BE DESIGNED BY THE STEEL FABRICATOR'S PROFESSIONAL ENGINEER USING ALLOWABLE STRESS DESIGN.
- b. THE CONNECTIONS SHALL BE DESIGNED FOR THE WORKING-STRESS REACTIONS INDICATED ON THE PLANS PLUS 10%. IN CASE WHERE REACTIONS ARE NOT INDICATED, THE REACTIONS SHALL BE CALCULATED AS FOLLOWS:
- (a) FOR NON-COMPOSITE BEAMS/GIRDERS THE REACTIONS SHALL BE HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN ON AISC MANUAL TABLES FOR ALLOWABLE LOADS ON BEAMS" FOR THE GIVEN STEEL SECTIONS AND SPAN.
- (b) FOR COMPOSITE BEAMS/GIRDERS THE REACTIONS SHALL BE HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN ON AISC MANUAL TABLES FOR ALLOWABLE LOADS ON BEAMS" FOR THE STEEL SECTIONS AND SPAN PLUS 20%.
- c. NO CONNECTION SHALL BE DESIGNED FOR LESS THAN 8 KIPS OF REACTION.
- d. BOLTS USED SHALL NOT BE SMALLER THAN 3/4" IN DIAMETER.
- e. ANY "SLIP CRITICAL" CONNECTIONS REQUIRED SHALL BE MADE BY THE USE OF "TWIST OFF TENSION CONTROL TYPE BOLTS" CONFORMING TO ASTM F 1652.
- f. THE MINIMUM NUMBER OF BOLT ROWS PER CONNECTION SHALL BE PER THE FOLLOWING TABLE:
- | NOMINAL BEAM DEPTH | MINIMUM # OF ROWS |
|--------------------|-------------------|
| 6, 8, 10, 12 | 2 |
| 14, 16, 18 | 3 |
| 21, 24 | 4 |
| 27, 30 | 5 |
| 33, 36 | 6 |
| 40, 44 | 7 |
- g. STIFFENED OR UN-STIFFENED SEATED CONNECTIONS ARE NOT ALLOWED.
- h. SINGLE PLATE SHEAR CONNECTIONS, ARE PERMITTED ONLY IN ACCORDANCE WITH THE FOLLOWING RESTRICTIONS:
- (a) FOR BEARING TYPE BOLTS ONLY STANDARD HOLES SHALL BE USED FOR THE CONNECTION TO THE BEAM. SHORT OR LONG SLOTTED HOLES ARE NOT PERMITTED. FOR SLIP CRITICAL TYPE BOLTS/CONNECTION ANY SLOTTED HOLES ARE PERMITTED.
- (b) THE WELD SHALL BE CONSIDERED TO CARRY ONLY SHEAR. ALL MOMENT RESULTING FROM THE ECCENTRICITY SHALL BE RESISTED BY THE BOLT GROUP.
- (c) THE EFFECT OF THE WELDING ON BOTH SIDES OF A GIRDER OR COLUMN WEB MUST BE ENGINEERED.
- j. SINGLE ANGLE CONNECTIONS ARE PERMITTED ONLY IN ACCORDANCE WITH THE FOLLOWING RESTRICTIONS:
- (a) CONNECTION OF BOTH LEGS OF THE ANGLE SHALL BE BY BOLTS (SHOP & FIELD BOLTED). WELDING OF THE ANGLE TO THE SUPPORTING MEMBER IS NOT ALLOWED.
- (b) THE SAME LENGTH, GAGE, NUMBER AND TYPE OF BOLTS MUST BE USED FOR BOTH LEGS OF THE ANGLE.
- (c) FOR BEARING TYPE BOLTS ONLY STANDARD HOLES SHALL BE USED FOR THE CONNECTION. SHORT OR LONG SLOTTED HOLES ARE NOT PERMITTED. FOR SLIP CRITICAL TYPE BOLTS/CONNECTION SLOTTED HOLES ARE PERMITTED.
- k. DOUBLE ANGLE CASE I TYPE CONNECTION WELDED TO BEAM, BOLTED TO GIRDER/ COLUMN) ARE PERMITTED WITH NO RESTRICTION.
- l. DOUBLE ANGLE CASE II TYPE CONNECTION (BOLTED TO BEAM, WELDED TO GIRDER/ COLUMN) ARE PERMITTED ONLY IN ACCORDANCE WITH THE FOLLOWING RESTRICTIONS:
- (a) FOR BEARING TYPE BOLTS ONLY STANDARD HOLES SHALL BE USED FOR CONNECTION TO THE BEAM. SHORT OR LONG SLOTTED HOLES ARE NOT PERMITTED. FOR SLIP CRITICAL TYPE BOLTS/CONNECTION SLOTTED HOLES ARE PERMITTED.
- (b) THE WELD SHALL BE CONSIDERED TO CARRY ONLY SHEAR AND MOMENT RESULTING FROM ECCENTRICITY SHALL BE RESISTED BY THE BOLT GROUP.
- (c) THE EFFECT OF THE WELDING ON BOTH SIDES OF A GIRDER OR COLUMN WEB MUST BE ENGINEERED.
- m. END PLATE SHEAR CONNECTIONS ARE PERMITTED WITH NO RESTRICTIONS.
- n. MOMENT, TRUSS & BRACING CONNECTIONS SHALL UTILIZE SLIP CRITICAL BOLTS FOR ALL CONNECTIONS.
- p. ALL STEEL TUBES CONNECTIONS TO BEAMS & COLUMNS SHALL BE END PLATE CONNECTIONS.

4. THE MINIMUM PLATE THICKNESS SHALL BE 3/8" (U.O.N.).
THE MINIMUM BOLT DIAMETER SHALL BE 3/4" (U.O.N.).
THE MINIMUM WELD THROAT SHALL BE 3/16" (U.O.N.).
5. WELDING ELECTRODES SHALL CONFORM TO ASTM SPECIFICATIONS E-70XX.
6. ALL STRUCTURAL STEEL, NOT RECEIVING SPRAY ON FIREPROOFING, INCLUDING ALL MEMBERS AND CONNECTIONS SHOWN AND NOTED ON THE DRAWINGS AS ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS), SHALL BE SHOP PAINTED WITH A RUST INHIBITIVE PRIMER. ASPHALTIC PAINT IS NOT PERMITTED. ALL STRUCTURAL STEEL, SCHEDULED, NOTED OR REQUIRED TO RECEIVE SPRAY ON FIREPROOFING SHALL BE EITHER FURNISHED UNPRIMED AND CLEANED PRIOR TO APPLICATION OF FIREPROOFING, OR PRIMED WITH A PRIMER COMPATIBLE WITH SPECIFIED FIREPROOFING.
7. ALL STEEL EXPOSED TO WEATHER, INCLUDING BUT NOT LIMITED TO: ALL MASONRY SHELF ANGLES AND ROOF MOUNTED MECH. EQUIP. DUNNAGE SHALL BE HOT DIP GALVANIZED.
8. CONTACT SURFACES OF ALL SLIP-CRITICAL AND/OR MOMENT CONNECTIONS SHALL BE FREE OF OIL, PAINT, GALVANIZING, OR OTHER FOREIGN SUBSTANCES.
9. BASE PLATES, BEAMS, COLUMNS, AND HARDWARE EXPOSED TO SOIL SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE PRIOR TO BACKFILL.
10. FABRICATE BEAMS WITH THE NATURAL MILL CAMBER UP.
11. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED IS PROHIBITED.
12. NO FINAL BOLTING OR WELDING SHALL BE DONE UNTIL AS MUCH OF THE STRUCTURAL FRAMING AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
13. ALL TEMPORARY ERECTION BRACING AND TIE RODS SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL MEMBERS ARE PROPERLY ALIGNED AND CONNECTED; AND SHALL NOT BE REMOVED UNTIL PERMANENT LATERAL BRACING IS FULLY ERECTED.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES.
15. REFER TO MASONRY NOTES FOR ANY ACCESSORIES REQUIRED TO BE ATTACHED TO STEEL MEMBERS FOR ANCHORING MASONRY.

K. STEEL DECK

1. COMPOSITE STEEL DECK WHERE CALLED ON DRAWINGS SHALL BE FABRICATED OF 40 KSI GALVANIZED SHEET STEEL, WITH RIBS SPACED AT 12" O.C.
2. ROOF DECK SHALL BE GALVANIZED STEEL DECK OF TYPE AND GAUGE AS NOTED ON PLAN. FABRICATED FROM 33 KSI STEEL SHEET.
3. STEEL DECKS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE SPANS U.O.N., FOR ONE OR TWO SPAN COMPOSITE DECK, TEMPORARY SHORING MAY BE REQUIRED UNTIL CONCRETE TOPPING ATTAINS DESIGN STRENGTH.
4. COMPOSITE STEEL DECK SHALL BE CONNECTED TO STEEL BEAMS AND OTHER SUPPORTS W/ 5/8" PUDDLE WELDS @ 3/4" PATTERN, SIDELAP AND PERIMETER CONNECTIONS TO BE #10 SELF TAPPING SCREWS @ 18" O.C. U.O.N.
5. TYPE B ROOF DECK SHALL BE CONNECTED TO STEEL BEAMS AND OTHER SUPPORTS W/ 5/8" PUDDLE WELDS @ 3/4" PATTERN, SIDELAP AND PERIMETER CONNECTIONS TO BE #10 SELF TAPPING SCREWS @ 12" O.C. U.O.N.
6. ROOF STEEL TYPE N DECK TO BE CONNECTED TO STEEL BEAMS AND OTHER SUPPORTS W/ 5/8" PUDDLE WELDS @ 3/4" PATTERN, SIDELAP AND PERIMETER CONNECTIONS TO BE #10 SELF TAPPING SCREWS @ 12" O.C. U.O.N.

L. LINTELS

a. STEEL LINTELS:

1. PROVIDE ONE STEEL ANGLE FOR EACH 4" OF WALL THICKNESS FOR THE FOLLOWING OPENINGS UNLESS OTHERWISE NOTED OR SHOWN ON CONTRACT DOCUMENTS:
- OPENINGS UP TO 3'-0" L3-1/2X3-1/2X5/16 (LLV)
OPENINGS 3'-1" TO 5'-0" L4X3-1/2X5/16 (LLV)
OPENINGS 5'-1" TO 6'-0" L5X3-1/2X5/16 (LLV)
2. FOR OPENINGS 6'-1" UP TO 8'-6", PROVIDE W8 X 18 WITH 5/16" SUSPENDED PLATE UNLESS OTHERWISE NOTED. LARGER OPENINGS SEE SPECIFIC CUT SECTION.
3. THIS STEEL LINTEL SCHEDULE SHALL APPLY TO ALL PENETRATIONS U.O.N. THROUGH RUNNING BOND MASONRY WALLS.
4. MINIMUM BEARING AT EACH END SHALL BE 6" FOR ALL STEEL LINTELS. PROVIDE ANCHORED BASE PLATE TO GROUTED CELLS AT EACH END OF STEEL BEAM LINTELS, PER TYPICAL DETAILS.
5. PROVIDE SHOP PRIME FOR ALL STEEL ALL INTERIOR AND HOT DIP GALVANIZING FOR ALL EXTERIOR.

M. LIGHT GAGE STEEL

1. MINIMUM YIELD STRENGTH OF LIGHT GAGE FRAMING COMPONENTS SHALL BE 33KSI FOR 18 GA OR LIGHTER AND 50KSI FOR 16 GA AND HEAVIER.
2. MAXIMUM DEFLECTION OF WALL STUD BACKUP FOR BRICK/MASONRY VENEER SHALL BE L/800. ALL OTHER SYSTEMS SHALL BE L/360. L IS THE STUD LENGTH BETWEEN SUPPORTS.
3. STUD BACKUP SYSTEM SHALL BE DESIGNED TO SPAN FROM FLOOR TO FLOOR WITHOUT KICKERS, UNLESS SPECIFICALLY SHOWN ON DOCUMENTS.
4. LIGHT GAGE STEEL FRAMING AND CONNECTIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT TO CONFORM WITH APPLICABLE BUILDING CODES AND GOOD DESIGN PRACTICES. MEMBER AND CONNECTION DESIGN SHALL CONSIDER LATERAL FORCES IN THE BUILDING, TEMPERATURE, DEFLECTIONS DUE TO LIVE LOAD, CREEP AND SHRINKAGE. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND CERTIFICATE FOR DESIGN OF MEMBERS AND CONNECTIONS. SIGNED & SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CONNECTICUT.
5. LIGHT GAGE STEEL SHALL HAVE A PROTECTIVE GALVANIZED COATING CONFORMING TO ASTM A1003-660 IN ACCORDANCE W/ THE INDUSTRY STANDARD REQUIREMENTS OF ASTM C555.

N. MASONRY

1. HOLLOW MASONRY UNITS USED IN LOAD BEARING, NON-LOAD BEARING WALLS AND PARTITIONS SHALL BE LIGHT- OR MEDIUM- WEIGHT, CONFORMING TO ASTM C90. UNIT STRENGTH OF ALL CONCRETE MASONRY SHALL BE 1900 PSI OR GREATER U.O.N.
2. PROVIDE HORIZONTAL GALVANIZED MASONRY WALL REINFORCEMENT IN FIRST AND SECOND BED JOINTS ABOVE AND BELOW OPENINGS AND IN EVERY SECOND BED JOINT ELSEWHERE.
3. FIRST COURSE OF MASONRY TO BE FULLY BEDDED IN MORTAR.
4. AT MASONRY ANCHORS FILL VOIDS SOLID WITH MORTAR AROUND ALL ANCHORS.
5. BRACING CONNECTION AT TOP OF NON-BEARING MASONRY WALLS SHALL ALLOW FOR MIN. 1" OF PRIMARY FRAME DEFLECTION.
6. ALL CMU REINFORCING SPLICES SHALL BE 48 BAR DIAMETERS LONG.
7. ON EACH SIDE OF OPENINGS THROUGH REINFORCED CMU WALLS PROVIDE REINFORCING EQUIVALENT TO HALF OF THE REBARS INTERRUPTED BY THE OPENING.
8. GROUT ALL CELLS SOLID AND PROVIDE HORIZ. JT. REINFORCING AT 8" O.C. VERT. AT BEARING POINTS OF ALL STEEL BEAMS.
9. MORTAR FOR MASONRY SHALL CONFORM TO ASTM C270 , WITH TYPE PER SPECIFICATIONS
10. GROUT FOR MASONRY SHALL HAVE 2500 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS
11. UNLESS OTHERWISE NOTED, PROVIDE #4@48" VERTICAL REINFORCEMENT IN ALL INTERIOR MASONRY WALLS, AND PROVIDE #5@24" VERTICAL REINFORCEMENT IN ALL EXTERIOR MASONRY WALLS.

P. SHOP DRAWINGS

1. SEE PROJECT SPECIFICATIONS FOR REQUIRED SHOP DRAWING SUBMISSIONS.
2. SHOP DRAWINGS ARE REVIEWED BY THE ENGINEER AS A CONVENIENCE TO THE CONTRACTOR AND ARE NOT CONTRACT DOCUMENTS. REVIEW OF SHOP DRAWINGS BY THE DESIGN TEAM DOES NOT CONSTITUTE A WAIVER OR REVISION TO ANY CONTRACT, UNLESS EXPLICITLY NOTED SO.
3. AT THE TIME OF SHOP DRAWING SUBMISSION, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DEVIATIONS AND OR OMISSIONS FROM THE CONTRACT DOCUMENTS.
4. THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS BEFORE SUBMITTING TO ENGINEER, MAKE ALL CORRECTIONS DEEMED NECESSARY, AND CERTIFY ON EACH DRAWING AS FOLLOWS:
- "I CERTIFY THAT THE CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND ALL DIMENSIONS, CONDITIONS, AND QUANTITIES ARE VERIFIED AS SHOWN AND/OR AS CORRECTED ON THIS DRAWING." SIGNED..... (FOR GENERAL CONTRACTOR).....
5. CONTRACTOR SHALL ALLOW A MINIMUM PERIOD OF TWO (2) WEEKS FOR THE REVIEW OF STRUCTURAL SHOP DRAWINGS. REVIEW PERIODS MAY BE EXTENDED FOR EXTREMELY LARGE OR MULTIPLE CONCURRENT SUBMISSIONS. IF REQUIRED, DESIGN TEAM WILL NOTIFY CONTRACTOR WITHIN 3 DAYS OF RECEIPT.

Q. TESTING AND INSPECTION

1. THE S.E.R MAY VISIT THE SITE TO PROVIDE CONSTRUCTION ASSISTANCE OR TO GENERALLY OBSERVE THE PROGRESS OF CONSTRUCTION. SUCH VISITS ARE NOT TO BE CONSTRUED AS MEETING ANY PROJECT INSPECTION REQUIREMENTS.
2. AN INDEPENDENT THE TESTING AGENCY SHALL PERFORM ALL SHOP AND FIELD INSPECTION AND TESTING. HOWEVER, THE FABRICATOR(S) AND ERECTOR(S) SHALL PROVIDE, PRIOR TO COMMENCING WORK, COMPLETE QUALITY CONTROL PROGRAMS.
3. THE STRUCTURAL STEEL FABRICATOR(S) AND ERECTOR(S) SHALL SCHEDULE ALL WORK TO ALLOW TESTING REQUIREMENTS TO BE COMPLETED.

R. OPEN WEB STEEL JOISTS

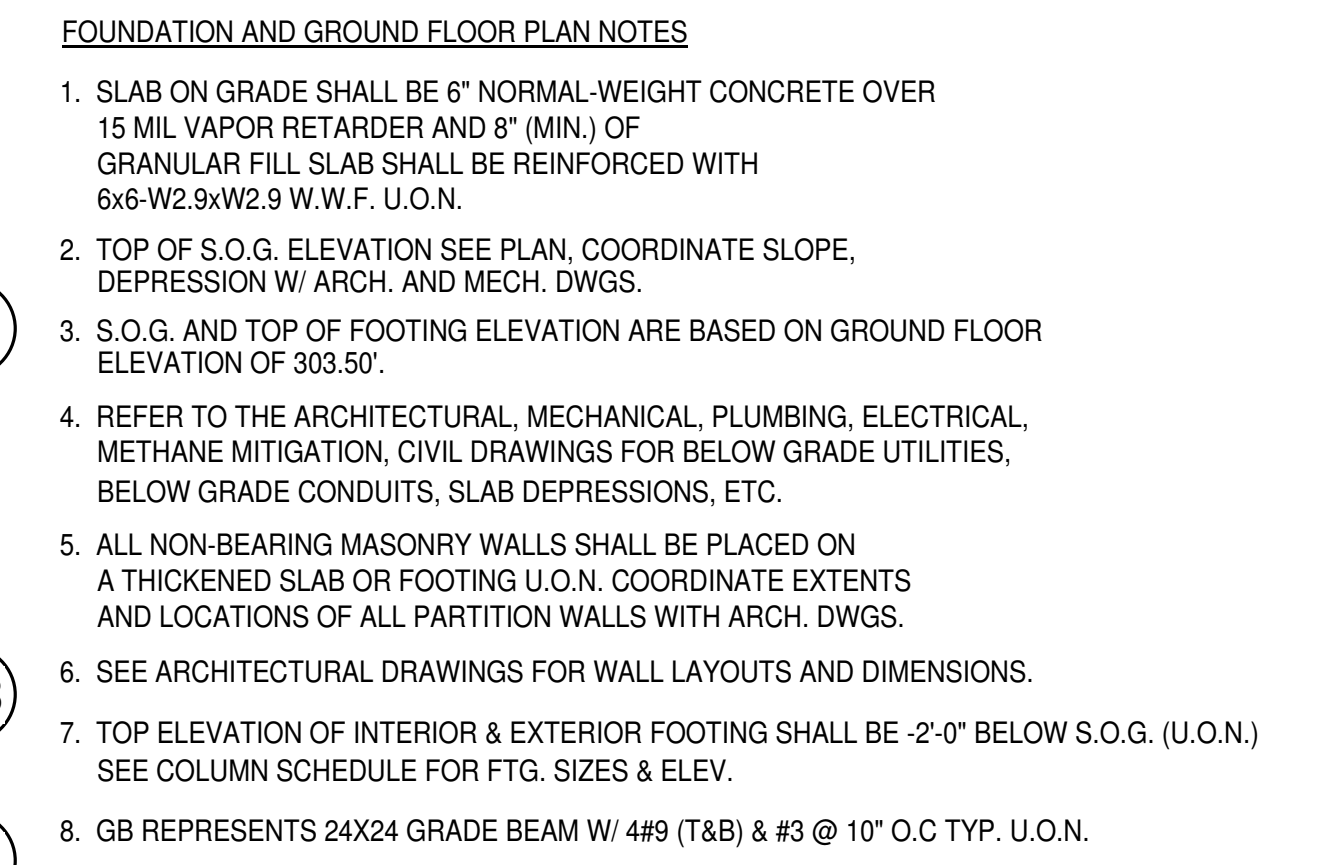
1. DESIGN, FABRICATION, ERECTION, AND DETAILING OF ALL STEEL JOISTS SHALL CONFORM TO STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS IN ALL RESPECTS.
2. STEEL JOIST SUPPLIER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.
3. JOIST BEARING ON STEEL OR MASONRY SUPPORTS SHALL CONFORM TO STEEL JOIST INSTITUTE STANDARD SPECIFICATION.
4. PROVIDE AND INSTALL BRIDGING IN ACCORDANCE WITH STEEL JOIST INSTITUTE STANDARDS WHERE BRIDGING IS INTERRUPTED BY DUCTS, LIGHT FIXTURES, ETC., PROVIDE DISCONTINUOUS BRIDGING ON EACH SIDE OF THE INTERRUPTION.
5. PROVIDE CHORD EXTENSIONS FOR CEILINGS, SUFFITS, AND ROOF EXTENSIONS WHERE REQUIRED ON CONTRACT DOCUMENTS.
6. ALL ROOF JOISTS SHALL BE DESIGNED FOR NET UPLIFT PER COMPONENTS & CLADDING LOADS INDICATED. ADD ADDITIONAL ROWS OF BRIDGING AS REQUIRED.
7. ALL JOISTS NOTED WITH "SP" HAVE SPECIAL DESIGN REQUIREMENTS. REFER TO PLANS AND DETAILS FOR LOCATIONS AND LOADING DIAGRAMS. DESIGN OF SPECIAL JOISTS SHALL BE BY MANUFACTURER'S ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION FOR ALL LOADINGS REQUIRED BY THESE DOCUMENTS. ALL CALCULATION SUBMISSIONS SHALL BEAR THIS ENGINEER'S SEAL AND SIGNATURE.

S. SYMBOLS

- ✕ ✕ ✕ : INDICATES LATERAL BRACING
- ← | → : INDICATES FULL MOMENT CONNECTION TO BEAM
- ← | | → : INDICATES FULL MOMENT CONNECTION TO COLUMN
- ⊥ : INDICATES COLUMN SPLICE LOCATION
- ↙ ↘ : INDICATES WELD THAT CAN BE EITHER FIELD OR SHOP WELD DEPENDING ON CONTRACTORS OPTION AND CAPABILITIES.
- ↖ ↗ : INDICATES DECK SPAN DIRECTION
- | ■ : INDICATES CONNECTION TO BE DESIGNED FOR AXIAL LOAD IN ADDITION TO STANDARD SHEAR

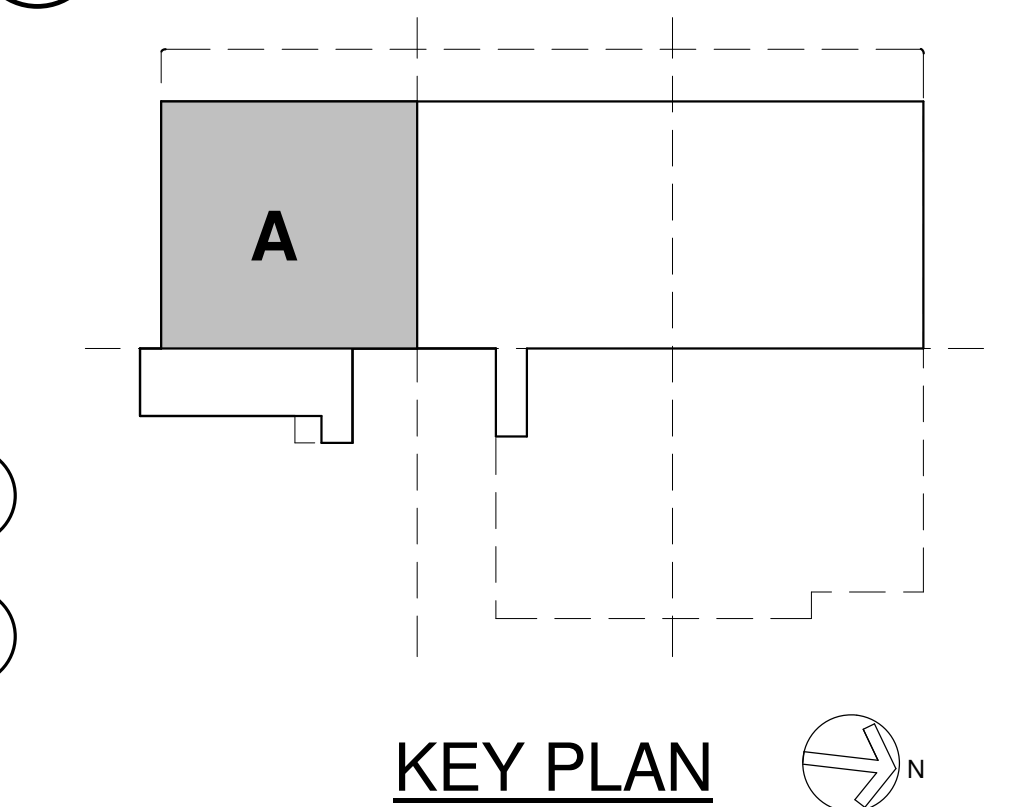
T. ABBREVIATIONS

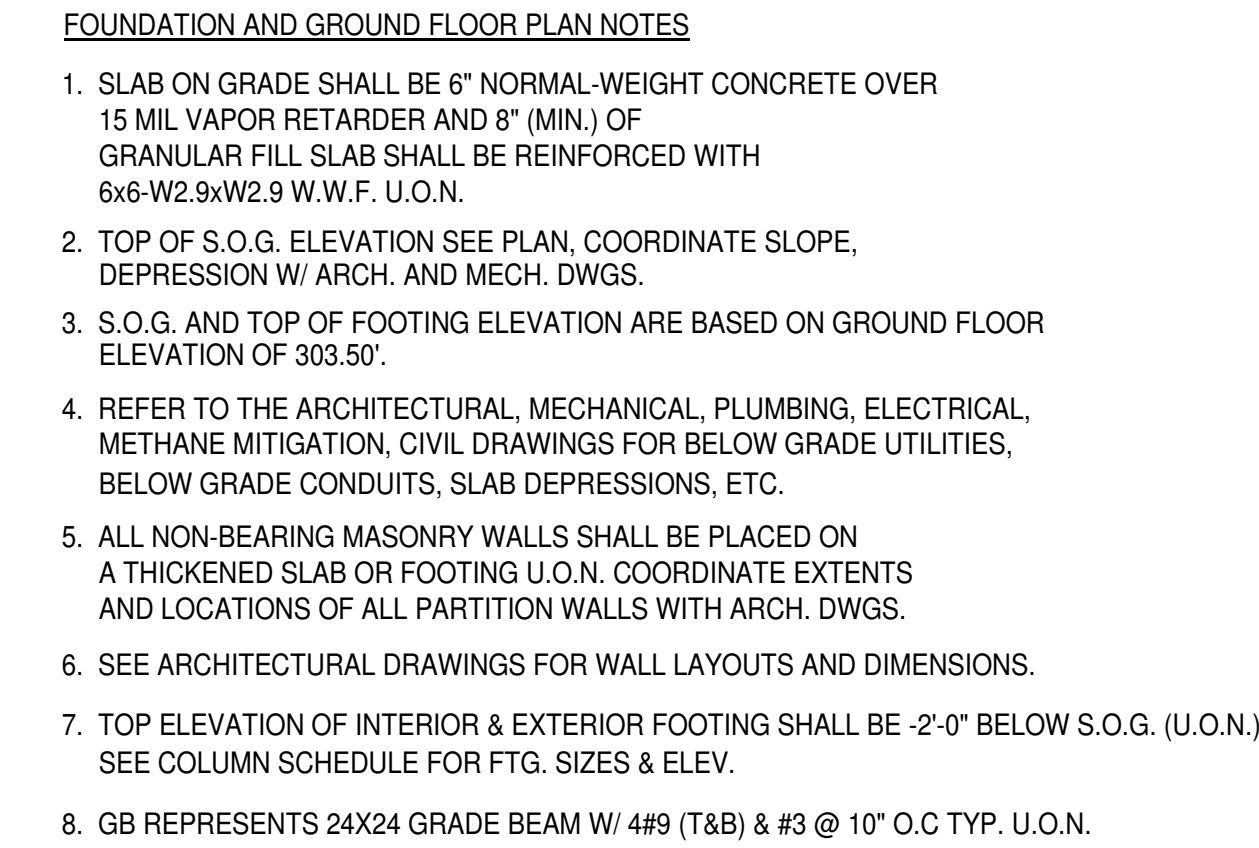
- | | | |
|-----------|---|--------------------------------|
| A.B. | = | Anchor Bolt |
| ADD'L | = | Additional |
| ARCH. | = | Architectural |
| BAL. | = | Balance |
| BM. | = | Beam |
| BOT. | = | Bottom |
| CBT. | = | Control Joint |
| C | = | Centerline |
| CA | = | Column Above |
| CB | = | Column Below |
| C.C. | = | Center to Center |
| C.F. | = | Center to Combined footing |
| CL | = | Clear |
| COL | = | Column |
| CONC | = | Concrete |
| CONN. | = | Connection |
| CONSTR. | = | Construction |
| CONT. | = | Continuous |
| db | = | Bar Diameter |
| DET. | = | Detail |
| DIAM. | = | Diameter |
| DI | = | Ditto |
| DWG. | = | Drawing |
| DWLS | = | Dowels |
| EA | = | Each |
| E.E | = | Each End |
| E.F. | = | Each Face |
| E.J. | = | Expansion Joint |
| EL. | = | Elevation |
| ELECT. | = | Electrical |
| ES | = | Each Side |
| E.W. | = | Each Way |
| E.O.S. | = | Edge Of structural Slab |
| EXP. | = | Expansion |
| FIN. | = | Finished |
| FL. | = | Floor |
| F.F. | = | Far Face |
| F.O.B. | = | Face Of Building |
| GR. BM. | = | Grade Beam |
| H./HORIZ. | = | Horizontal |
| H.D.G. | = | Hot Dip Galvanized |
| H.P. | = | High Point |
| JT. | = | Joint |
| JS | = | Joist Substitutes |
| LFRS | = | Lateral Force Resisting System |
| L.P. | = | Low Point |
| LT. | = | Light |
| L.W. | = | Long Way |
| MAX. | = | Maximum |
| MECH. | = | Mechanical |
| MFR. | = | Manufacturer |
| MIN. | = | Minimum |
| N.F. | = | Near Face |
| NO. | = | Number |
| NTS | = | Not to Scale |
| O.C. | = | On Center |
| OPNG. | = | Opening |
| P.A.F. | = | Powder Actuated Fasteners |
| P.C. | = | Precast Concrete |
| P.J.F | = | Pre molded Joint Filler |
| P.P. | = | Precast Panel |
| P | = | Plate |
| R | = | Radius |
| REINF. | = | Reinforcement |
| REQ'D. | = | Required |
| SCHED. | = | Schedule |
| SECT. | = | Section |
| S.E.R | = | Structural Engineer of Record |
| S.F. | = | Step footing |
| S.I. | = | Similar |
| SJM. | = | Soft Joint |
| S.O.G. | = | Slab On Grade |
| SQ. | = | Square |
| S.S. | = | Stainless Steel |
| ST. | = | Steel |



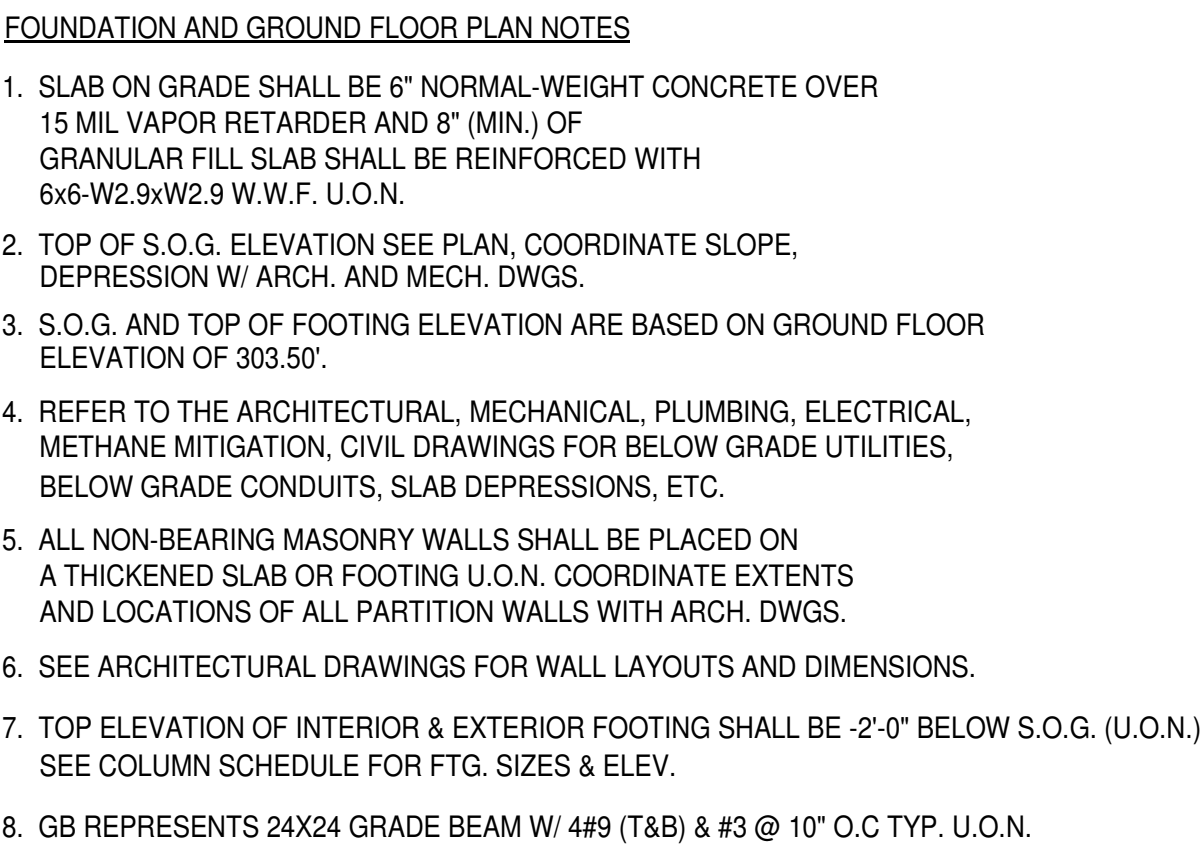
Footing Schedule (for allowable soil bearing pressure: 4000 psf)		
	FOOTING SIZE	REINFORCEMENT E.W. (Bott Only)
F3.0	3'-0"x3'-0"x2'-0"	4#6
F3.5	3'-6"x3'-6"x2'-0"	5#6
F4.0	4'-0"x4'-0"x2'-0"	5#6
F4.5	4'-6"x4'-6"x2'-0"	6#6
F5.0	5'-0"x5'-0"x2'-0"	7#6
F5.5	5'-6"x5'-6"x2'-0"	7#6
F6.0	6'-0"x6'-0"x2'-0"	8#6
F6.5	6'-6"x6'-6"x2'-0"	8#6
F7.0	7'-0"x7'-0"x2'-0"	9#6
F7.5	7'-6"x7'-6"x2'-0"	9#6
F8.0	8'-0"x8'-0"x2'-0"	10#6
F8.5	8'-6"x8'-6"x2'-2"	10#6
F9.0	9'-0"x9'-0"x2'-2"	9#7
F9.5	9'-6"x9'-6"x2'-4"	10#7
F10.0	10'-0"x10'-0"x2'-4"	11#7
F11.0	11'-0"x11'-0"x2'-6"	12#8
F11.5	11'-6"x11'-6"x2'-6"	12#8
F12.0	12'-0"x12'-0"x2'-8"	13#8
F13.0	13'-0"x13'-0"x2'-10"	14#8
F14.0	14'-0"x14'-0"x2'-10"	15#8
F14.5	14'-6"x14'-6"x2'-10"	15#8
F8.5C	8'-6"x8'-6"x2'-2"	10#6 / #5@12" O.C. E.W. (T)
F9.5C	9'-6"x9'-6"x2'-4"	10#7 / #5@12" O.C. E.W. (T)
F10.0C	10'-0"x10'-0"x2'-4"	11#7 / #5@12" O.C. E.W. (T)
F11.0C	11'-0"x11'-0"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F11.5C	11'-6"x11'-6"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F12.0C	12'-0"x12'-0"x2'-10"	13#8 / #5@12" O.C. E.W. (T)
F13.0C	13'-0"x13'-0"x2'-10"	14#8 / #8@12" O.C. E.W. (T)
F14.0C	14'-0"x14'-0"x2'-10"	15#8 @12" O.C. E.W. (T)
F15.5C	15'-6"x15'-6"x3'-0"	16#8 / #5@12" O.C. E.W. (T)

1 GROUND LEVEL FLOOR PLAN - AREA A
1/8" = 1'-0"



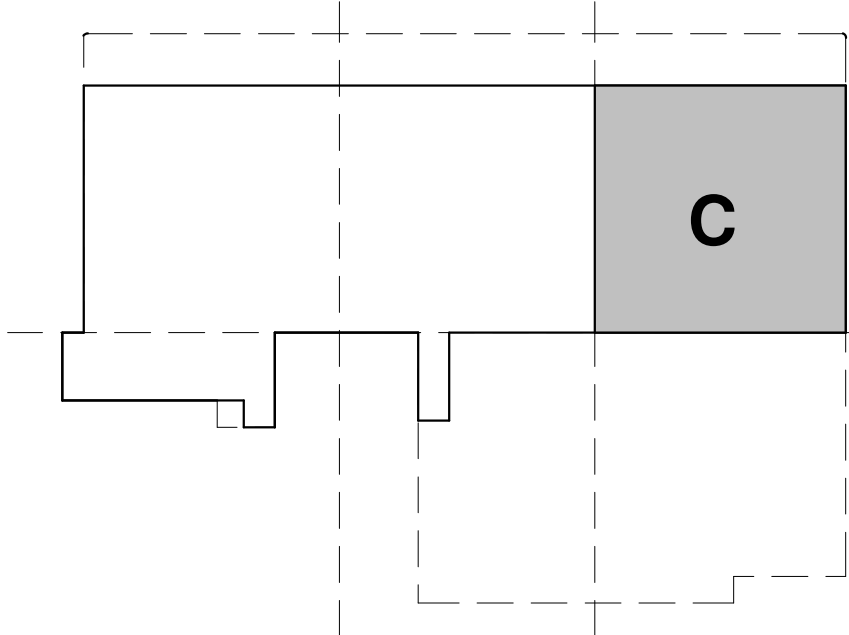


KEY PLAN



Footing Schedule (for allowable soil bearing pressure: 4000 psf)		
	FOOTING SIZE	REINFORCEMENT E.W. (Bott Only)
F3.0	3'-0"x3'-0"x2'-0"	4#6
F3.5	3'-6"x3'-6"x2'-0"	5#6
F4.0	4'-0"x4'-0"x2'-0"	5#6
F4.5	4'-6"x4'-6"x2'-0"	6#6
F5.0	5'-0"x5'-0"x2'-0"	7#6
F5.5	5'-6"x5'-6"x2'-0"	7#6
F6.0	6'-0"x6'-0"x2'-0"	8#6
F6.5	6'-6"x6'-6"x2'-0"	8#6
F7.0	7'-0"x7'-0"x2'-0"	9#6
F7.5	7'-6"x7'-6"x2'-0"	9#6
F8.0	8'-0"x8'-0"x2'-0"	10#6
F8.5	8'-6"x8'-6"x2'-2"	10#6
F9.0	9'-0"x9'-0"x2'-2"	9#7
F9.5	9'-6"x9'-6"x2'-4"	10#7
F10.0	10'-0"x10'-0"x2'-4"	11#7
F11.0	11'-0"x11'-0"x2'-6"	12#8
F11.5	11'-6"x11'-6"x2'-6"	12#8
F12.0	12'-0"x12'-0"x2'-8"	13#8
F13.0	13'-0"x13'-0"x2'-10"	14#8
F14.0	14'-0"x14'-0"x2'-10"	15#8
F14.5	14'-6"x14'-6"x2'-10"	15#8
F8.5C	8'-6"x8'-6"x2'-2"	10#6 / #5@12" O.C. E.W. (T)
F9.5C	9'-6"x9'-6"x2'-4"	10#7 / #5@12" O.C. E.W. (T)
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F11.5C	11'-6"x11'-6"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F12.0C	12'-0"x12'-0"x2'-10"	13#8 / #5@12" O.C. E.W. (T)
F13.0C	13'-0"x13'-0"x2'-10"	14#8 / #8@12" O.C. E.W. (T)
F14.0C	14'-0"x14'-0"x2'-10"	15#8 @12" O.C. E.W. (T)
F15.5C	15'-6"x15'-6"x3'-0"	16#8 / #5@12" O.C. E.W. (T)

1 GROUND LEVEL FLOOR PLAN - AREA C
1/8" = 1'-0"



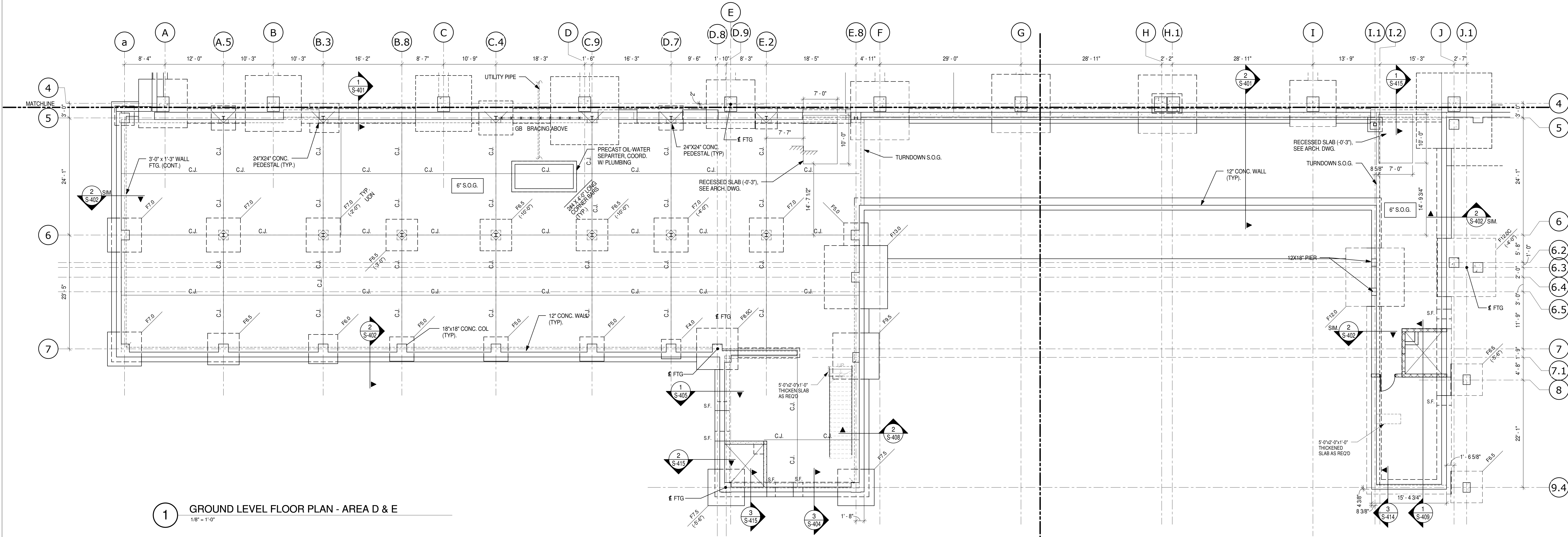
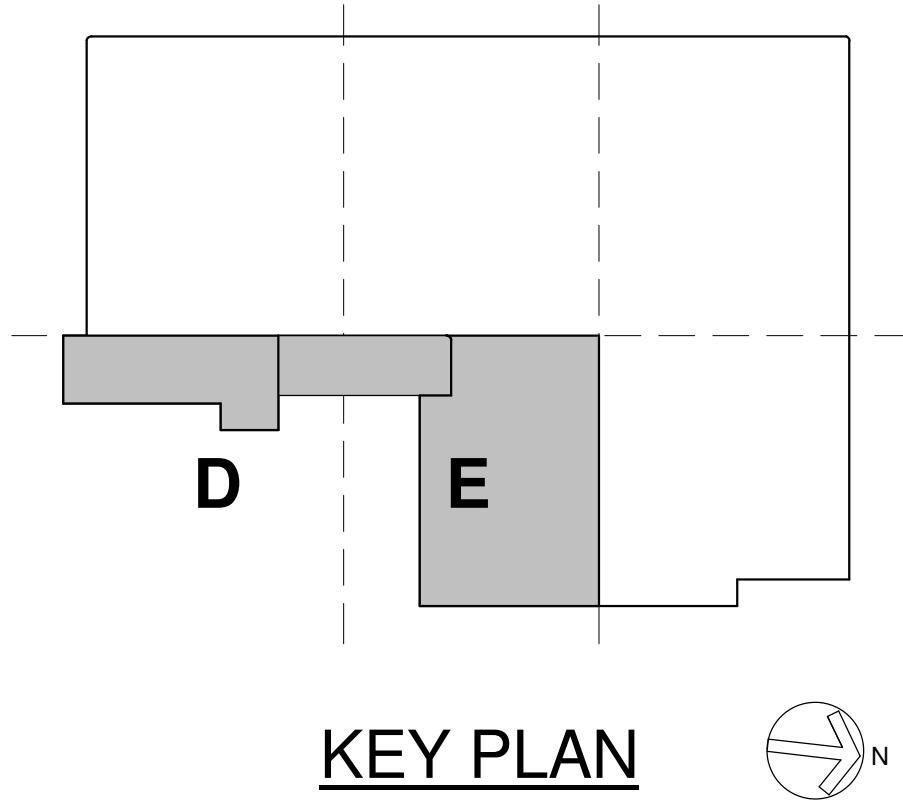
KEY PLAN 

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Footing Schedule (for allowable soil bearing pressure: 4000 psf)		
	FOOTING SIZE	REINFORCEMENT E.W. (Bott Only)
F3.0	3'-0"x3'-0"x2'-0"	4#6
F3.5	3'-6"x3'-6"x2'-0"	5#6
F4.0	4'-0"x4'-0"x2'-0"	5#6
F4.5	4'-6"x4'-6"x2'-0"	6#6
F5.0	5'-0"x5'-0"x2'-0"	7#6
F5.5	5'-6"x5'-6"x2'-0"	7#6
F6.0	6'-0"x6'-0"x2'-0"	8#6
F6.5	6'-6"x6'-6"x2'-0"	8#6
F7.0	7'-0"x7'-0"x2'-0"	9#6
F7.5	7'-6"x7'-6"x2'-0"	9#6
F8.0	8'-0"x8'-0"x2'-0"	10#6
F8.5	8'-6"x8'-6"x2'-2"	10#6
F9.0	9'-0"x9'-0"x2'-2"	9#7
F9.5	9'-6"x9'-6"x2'-4"	10#7
F10.0	10'-0"x10'-0"x2'-4"	11#7
F11.0	11'-0"x11'-0"x2'-6"	12#8
F11.5	11'-6"x11'-6"x2'-6"	12#8
F12.0	12'-0"x12'-0"x2'-8"	13#8
F13.0	13'-0"x13'-0"x2'-10"	14#8
F14.0	14'-0"x14'-0"x2'-10"	15#8
F14.5	14'-6"x14'-6"x2'-10"	15#8
F8.5C	8'-6"x8'-6"x2'-2"	10#6 / #5@12" O.C. E.W. (T)
F9.5C	9'-6"x9'-6"x2'-4"	10#7 / #5@12" O.C. E.W. (T)
F10.0C	10'-0"x10'-0"x2'-4"	11#7 / #5@12" O.C. E.W. (T)
F11.0C	11'-0"x11'-0"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F11.5C	11'-6"x11'-6"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F12.0C	12'-0"x12'-0"x2'-10"	13#8 / #5@12" O.C. E.W. (T)
F13.0C	13'-0"x13'-0"x2'-10"	14#8 / #8@12" O.C. E.W. (T)
F14.0C	14'-0"x14'-0"x2'-10"	15#8 @12" O.C. E.W. (T)
F15.5C	15'-6"x15'-6"x3'-0"	16#8 / #5@12" O.C. E.W. (T)

FOUNDATION AND GROUND FLOOR PLAN NOTES

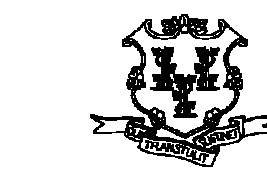
- SLAB ON GRADE SHALL BE 6" NORMAL-WEIGHT CONCRETE OVER 15 MIL VAPOR RETARDER AND 8" (MIN.) OF GRANULAR FILL. SLAB SHALL BE REINFORCED WITH 6x6-W2.9xW2.9 W.W.F. U.O.N.
- TOP OF S.O.G. ELEVATION SEE PLAN, COORDINATE SLOPE, DEPRESSION W/ ARCH. AND MECH. DWGS.
- S.O.G. AND TOP OF FOOTING ELEVATION ARE BASED ON GROUND FLOOR ELEVATION ON 304.00' ESTABLISHED BY CIVIL DWGS.
- REFER TO THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, METHANE MITIGATION, CIVIL DRAWINGS FOR BELOW GRADE UTILITIES, BELOW GRADE CONDUITS, SLAB DEPRESSIONS, ETC.
- TOP OF FOOTING ELEVATION IS MEASURED FROM TOP OF S.O.G. ELEVATION 304.00' TYPICAL U.O.N. FOOTING ELEVATIONS ARE FOR BIDDING PURPOSES ONLY AND MAY HAVE TO BE ADJUSTED BASED ON FIELD CONDITIONS ENCOUNTERED DURING EXCAVATION.
- ALL NON-BEARING MASONRY WALLS SHALL BE PLACED ON A THICKENED SLAB OR FOOTING U.O.N. COORDINATE EXTENTS AND LOCATIONS OF ALL PARTITION WALLS WITH ARCH. DWGS.
- SEE ARCHITECTURAL DRAWINGS FOR WALL LAYOUTS AND DIMENSIONS.
- TOP ELEVATION OF INTERIOR & EXTERIOR FOOTING SHALL BE -2'-0" BELOW S.O.G. (U.O.N.)
- GB REPRESENTS 24"x24" GRADE BEAM W/ 4#9 (T&B) & #3@10" O.C. TYP. U.O.N.



REV.	DATE	DESCRIPTION	SHEET NO.
FILENAME:			

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:	CSK/JMB/C
CHECKED BY:	AJ
SCALE:	1/8" = 1'-0"

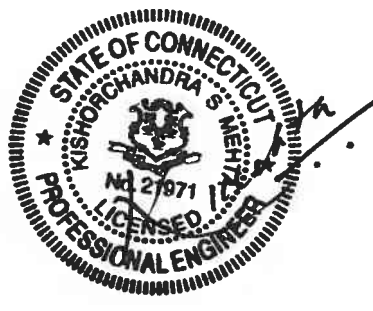


STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



ARCHITECT: WENDEL	ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
APPROVED BY: KM	DATE: 6/11/2014

DESIGNED BY:
RESTL DESIGNERS, INC.
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:

WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT

ADDRESS:

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:

GROUND FLOOR & FOUNDATION
PLAN - AREA D & E

PROJECT NO.

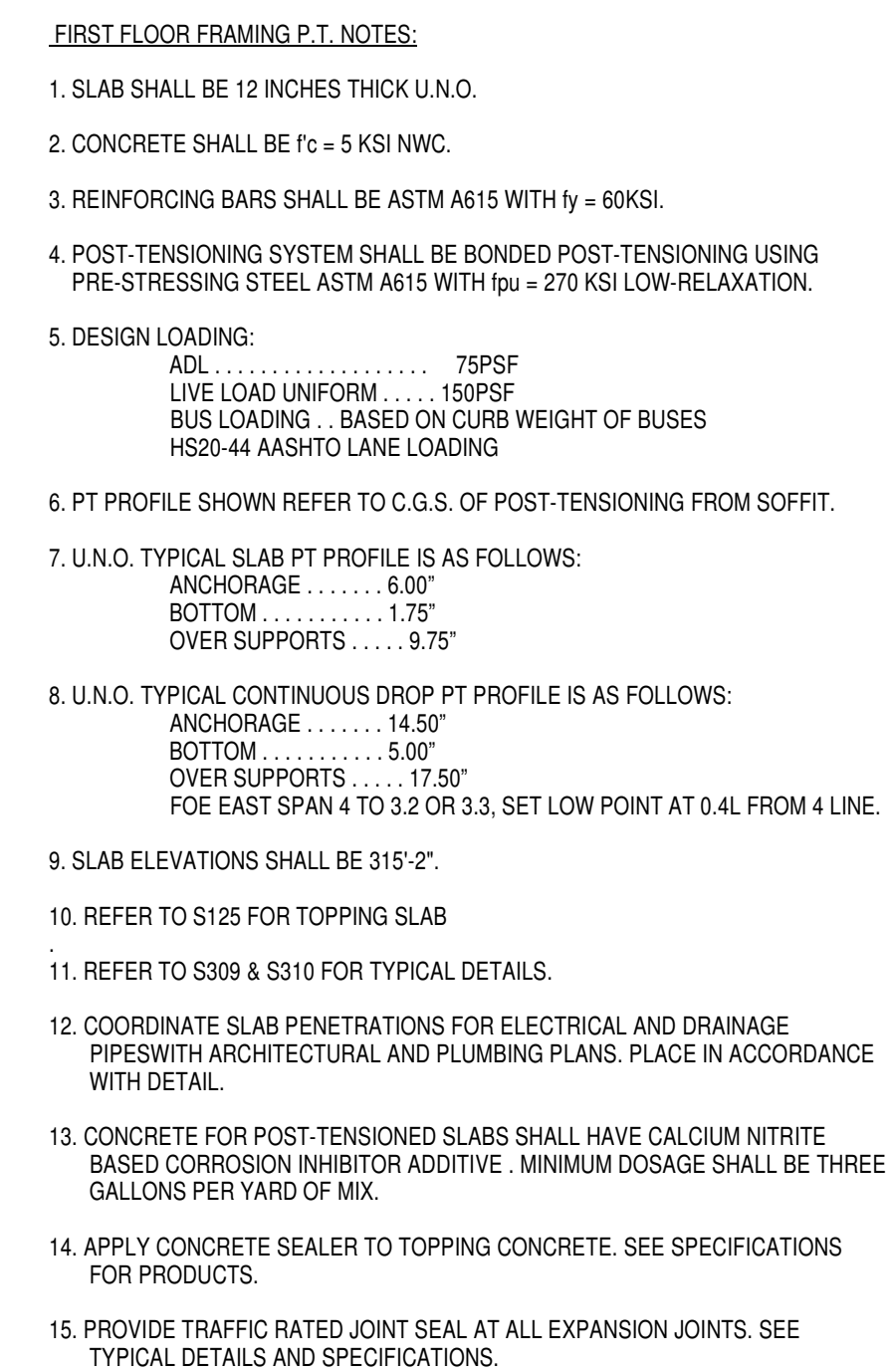
0431-0006

DRAWING NO.

S-104

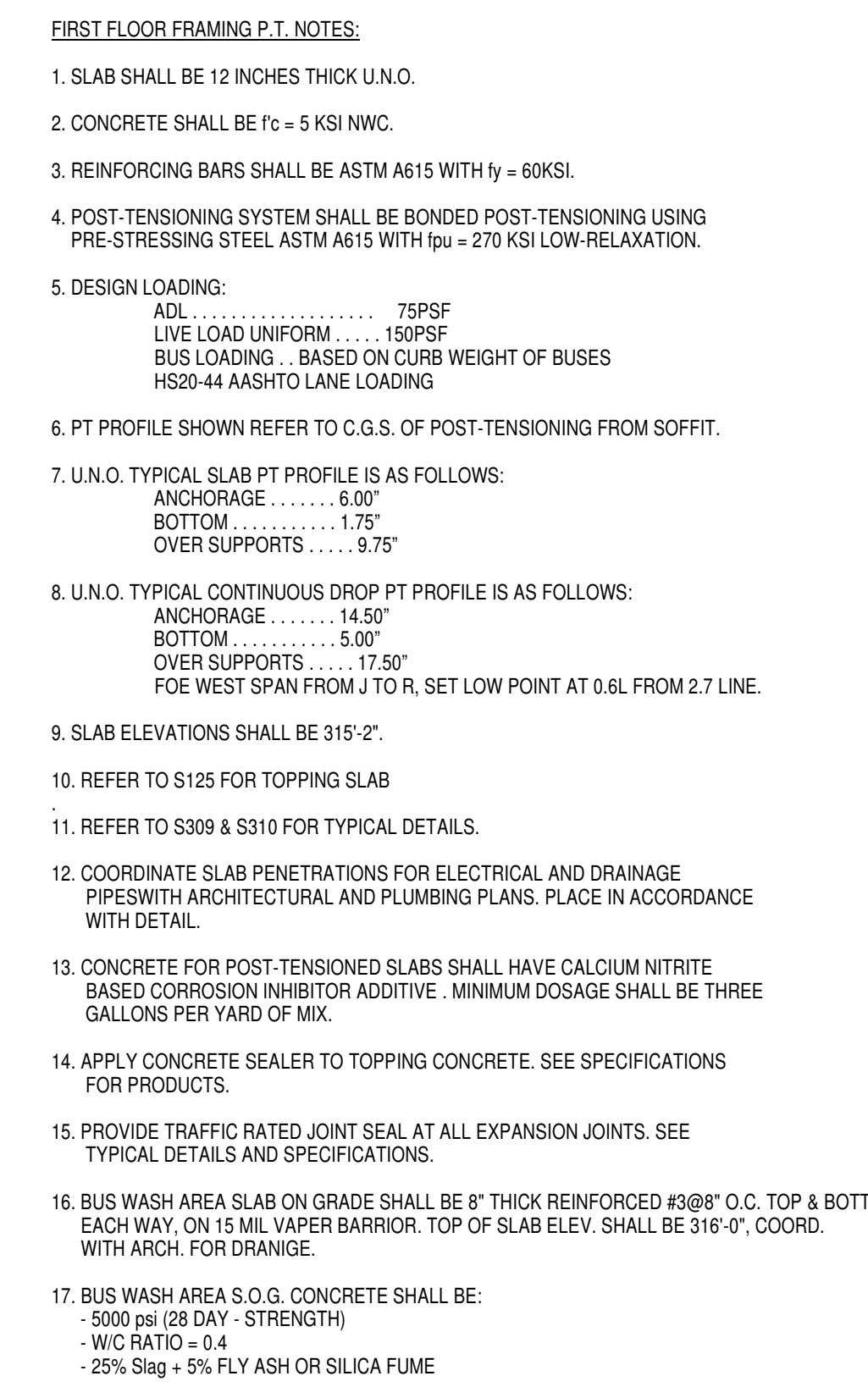
SHEET NO.

09.006



KEY PLAN

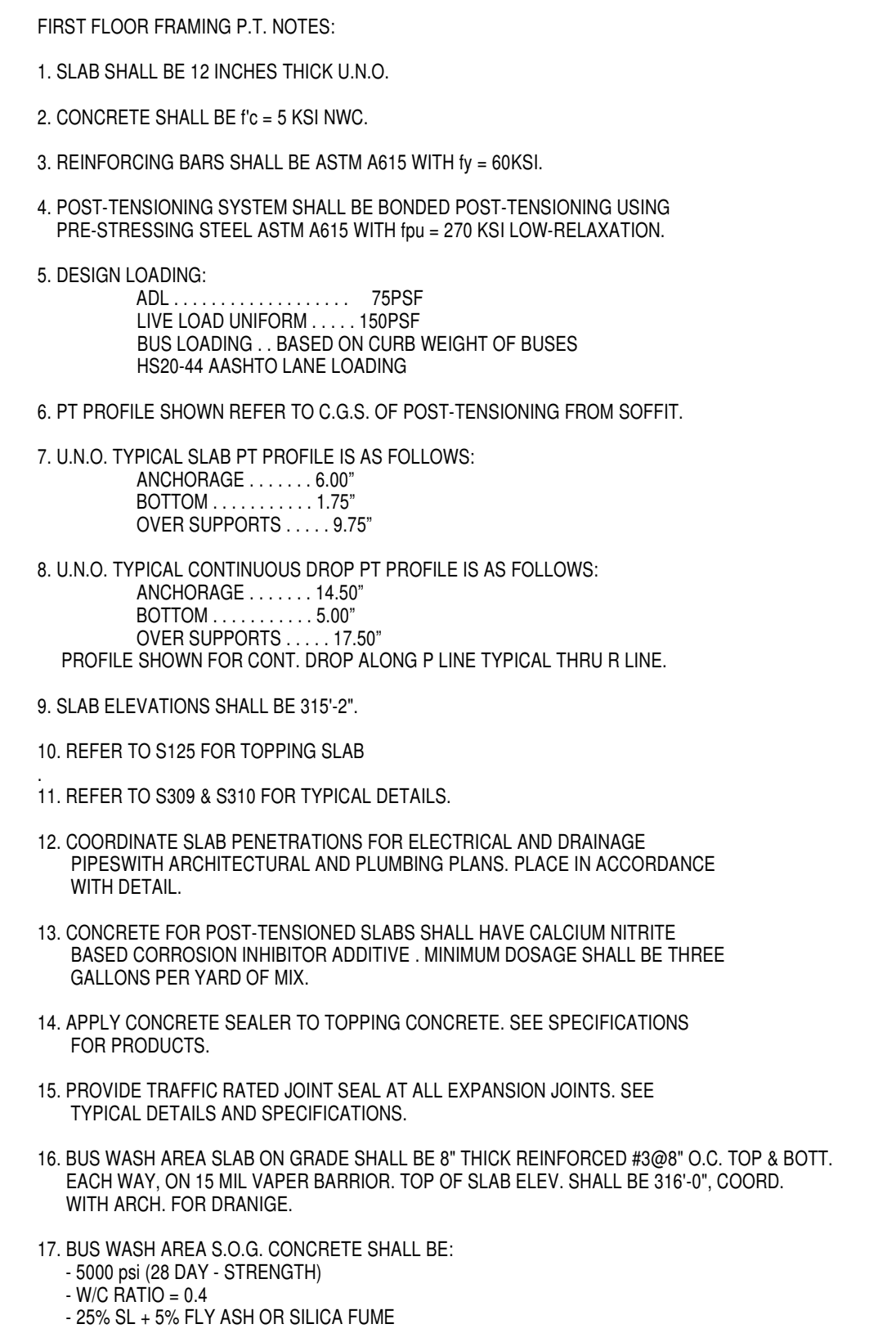
ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO.	0431-0006
DRAWING TITLE:	FIRST FLOOR FRAMING PLAN - AREA A	DRAWING NO.	S-105
		SHEET NO.	09.007



A diagram showing a 2D grid with a shaded cell labeled 'B'. The grid is composed of several cells, with the central cell being shaded gray and labeled 'B'. The grid is bounded by dashed lines, and the shaded cell is located in the center of the grid.



ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO. 0431-0006
DRAWING TITLE:	FIRST FLOOR FRAMING PLAN - AREA B	DRAWING NO. S-106
		SHEET NO. 09.008



KEY PLAN

The key plan shows the site layout with a dashed line indicating the boundary between the existing building and the proposed development. The proposed development is shaded in grey and labeled 'C'. A north arrow is located at the bottom right of the plan.

[illegible]

FLOOR FRAMING NOTES:

1. FLOOR CONSTRUCTION SHALL BE 4" LIGHT WEIGHT CONCRETE OVER 2"x18 GA. COMPOSITE STEEL FLOOR DECK (GAL.) WITH 6x6-W2.0xW2.0 W.W.F. U.O.N. TOTAL SLAB THICKNESS TO BE 6"

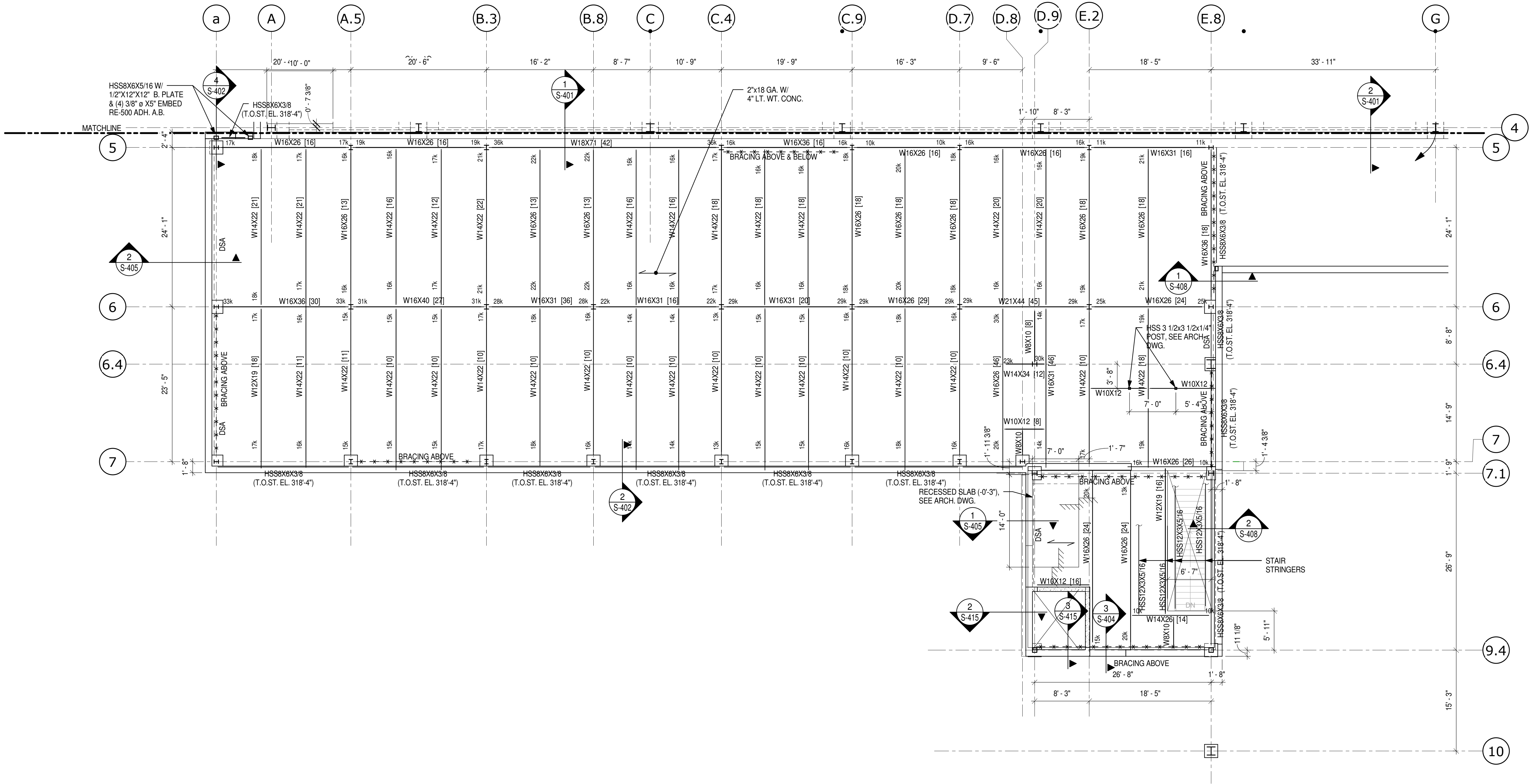
2. TOP OF SLAB ELEVATION SHALL BE 316'-0" U.O.N.

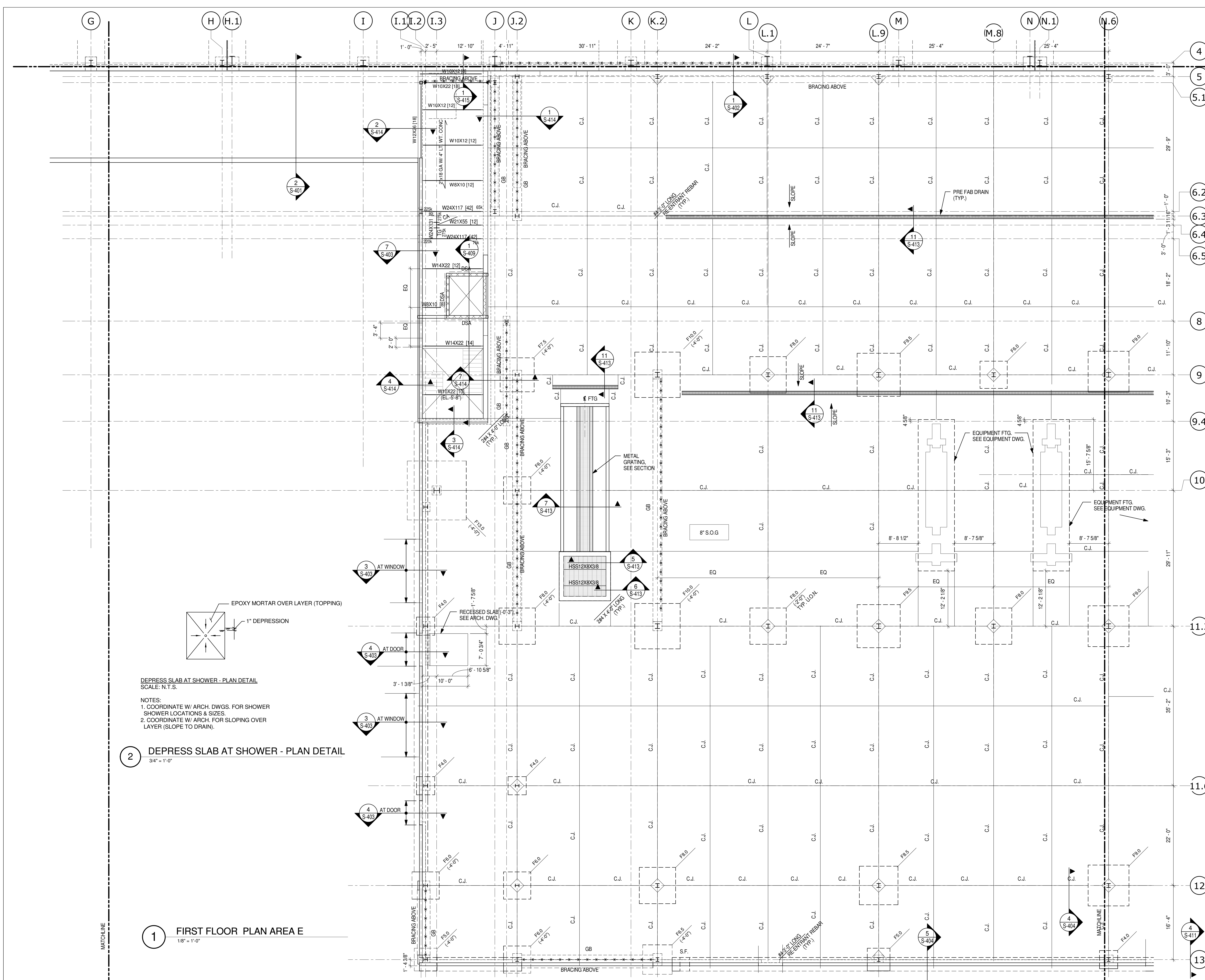
3. [] INDICATES TOTAL NUMBER OF 3/4" DIA. x5" LONG HEADED STUDS TO BE INSTALLED ON TOP FLANGE OF BEAM.

4. WHEN DIMENSIONS FROM E.O.S. TO BEAM CENTER IS NOT INDICATED, IT SHALL BE HALF THE BEAM FLANGE + 2" BUT NOT LESS THAN 6" U.O.N.

5. COORDINATE WITH ARCH. MEP EQUIPMENTS, LANDSCAPING, AND CIVIL DRAWINGS FOR DIMENSIONS, ELEVATIONS, OPENINGS, SLOPES, STEPS, SLEEVES, AND ALL OTHER REQUIREMENTS.

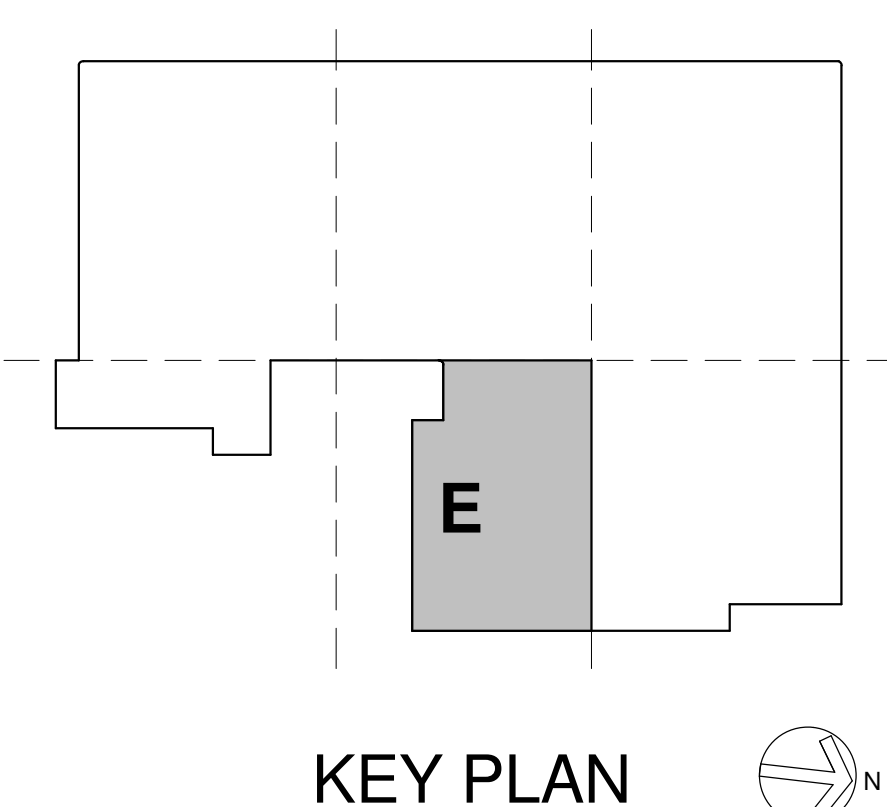
6. DSA DEFINE CONT. L5X3X1/2 (LLV) W/ 5/8" øX6 5/8" LONG EMBED HIT RE 500SD ADH ANCHOR @ 16" O.C. (U.O.N.)

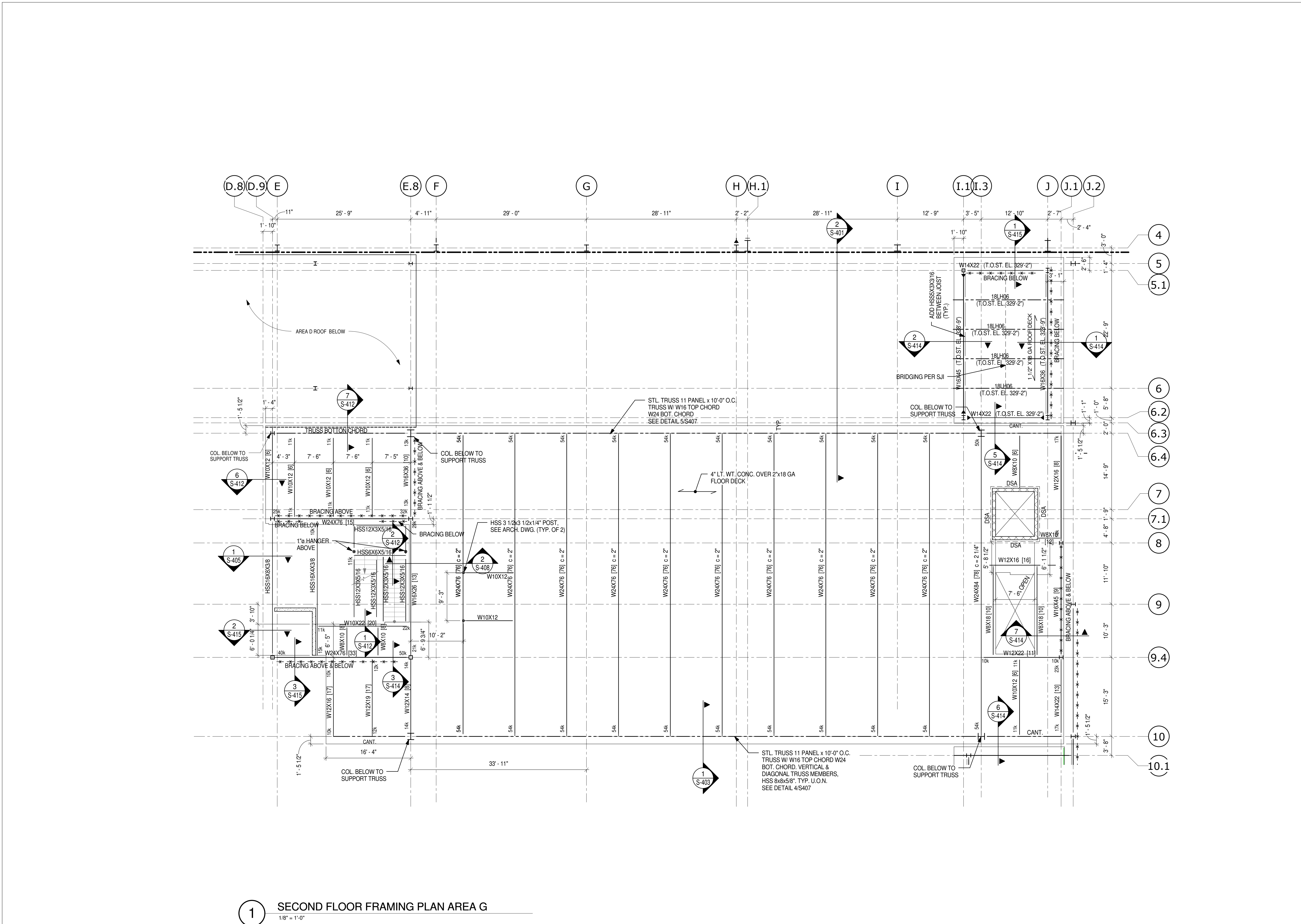




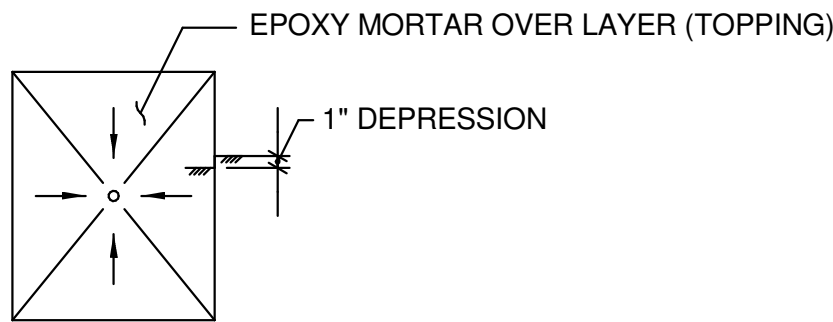
- FOUNDATION AND GROUND FLOOR PLAN NOTES**
- SLAB ON GRADE SHALL BE 8" NORMAL-WEIGHT CONCRETE OVER 15 MIL VAPOR RETARDER AND 8" (MIN.) OF FREE-DRAINING GRANULAR BASE. SLAB SHALL BE REINFORCED WITH #3 @ 8" GRID - E.W. TOP & BOTTOM. THE CONCRETE OF THIS S.O.G. SHALL BE: 5000 PSI (28 DAY COMP. STRENGTH) W/C RATIO = 0.4 MAX. 25% SLAG + 5% FLY ASH OR SILICA FUME
 - TOP OF S.O.G. ELEVATION SEE PLAN, COORDINATE SLOPE, DEPRESSION W/ ARCH. AND MECH. DWGS.
 - S.O.G. AND TOP OF FOOTING ELEVATION ARE BASED ON FIRST FLOOR ELEVATION ON 316.00' ESTABLISHED BY CIVIL DWGS.
 - REFER TO THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, METHANE MITIGATION, CIVIL DRAWINGS FOR BELOW GRADE UTILITIES, BELOW GRADE CONDUITS, SLAB DEPRESSIONS, ETC.
 - TOP OF FOOTING ELEVATION IS MEASURED FROM TOP OF S.O.G. ELEVATION 2'-0" TYPICAL U.O.N. FOOTING ELEVATIONS ARE FOR BIDDING PURPOSES ONLY AND MAY HAVE TO BE ADJUSTED BASED ON FIELD CONDITIONS ENCOUNTERED DURING EXCAVATION.
 - ALL NON-BEARING MASONRY WALLS SHALL BE PLACED ON A THICKENED SLAB OR FOOTING U.O.N. COORDINATE EXTENTS AND LOCATIONS OF ALL PARTITION WALLS WITH ARCH. DWGS.
 - SEE ARCHITECTURAL DRAWINGS FOR WALL LAYOUTS, DIMENSIONS, FLOOR SLOPES, AND BOLLARDS NOT SHOWN. FOR EXTERIOR BOLLARD LOCATIONS, SEE CIVIL DRAWINGS.
 - GB REPRESENTS 24"x24" GRADE BEAM W/ 4#9 (T&B) & #3@10" O.C. TYP. U.O.N.
 - GB2 REPRESENTS 24"x40" GRADE BEAM W/ 6#9 (T&B) & #3@10" O.C. TYP. U.O.N.
 - GB3 REPRESENTS 24"x36" GRADE BEAM W/ 6#9 (T&B) & #3@10" O.C. TYP. U.O.N.
 - SEE ARCHITECTURAL DRAWINGS FOR FIT PLAN DIMENSIONS & LAYOUT.

Footing Schedule (for allowable soil bearing pressure: 4000 psf)		
	FOOTING SIZE	REINFORCEMENT E.W. (Bott Only)
F3.0	3'-0"x3'-0"x2'-0"	4#6
F3.5	3'-6"x3'-6"x2'-0"	5#6
F4.0	4'-0"x4'-0"x2'-0"	5#6
F4.5	4'-6"x4'-6"x2'-0"	6#6
F5.0	5'-0"x5'-0"x2'-0"	7#6
F5.5	5'-6"x5'-6"x2'-0"	7#6
F6.0	6'-0"x6'-0"x2'-0"	8#6
F6.5	6'-6"x6'-6"x2'-0"	8#6
F7.0	7'-0"x7'-0"x2'-0"	9#6
F7.5	7'-6"x7'-6"x2'-0"	9#6
F8.0	8'-0"x8'-0"x2'-0"	10#6
F8.5	8'-6"x8'-6"x2'-2"	10#6
F9.0	9'-0"x9'-0"x2'-2"	9#7
F9.5	9'-6"x9'-6"x2'-4"	10#7
F10.0	10'-0"x10'-0"x2'-4"	11#7
F11.0	11'-0"x11'-0"x2'-6"	12#8
F11.5	11'-6"x11'-6"x2'-6"	12#8
F12.0	12'-0"x12'-0"x2'-8"	13#8
F13.0	13'-0"x13'-0"x2'-10"	14#8
F14.0	14'-0"x14'-0"x2'-10"	15#8
F14.5	14'-6"x14'-6"x2'-10"	15#8
F8.5C	8'-6"x8'-6"x2'-2"	10#6 / #5@12" O.C. E.W. (T)
F9.5C	9'-6"x9'-6"x2'-4"	10#7 / #5@12" O.C. E.W. (T)
F10.0C	10'-0"x10'-0"x2'-4"	11#7 / #5@12" O.C. E.W. (T)
F11.0C	11'-0"x11'-0"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F11.5C	11'-6"x11'-6"x2'-10"	12#8 / #5@12" O.C. E.W. (T)
F12.0C	12'-0"x12'-0"x2'-10"	13#8 / #5@12" O.C. E.W. (T)
F13.0C	13'-0"x13'-0"x2'-10"	14#8 / #8@12" O.C. E.W. (T)
F14.0C	14'-0"x14'-0"x2'-10"	15#8 @12" O.C. E.W. (T)
F15.5C	15'-6"x15'-6"x3'-0"	16#8 / #5@12" O.C. E.W. (T)





- FLOOR FRAMING NOTES:
1. SECOND FLOOR CONSTRUCTION SHALL BE 4" LIGHT WEIGHT CONCRETE OVER 2"x18 GA. COMPOSITE STEEL FLOOR DECK (GAL.) WITH 6x6-W2.0xW2.0 W.W.F. U.O.N. TOTAL SLAB THICKNESS TO BE 6".
 2. TOP OF SLAB ELEVATION SHALL BE 332'-00" U.O.N.
 3. [] INDICATES TOTAL NUMBER OF 3/4" DIAZ. x5" LONG HEADED STUDS TO BE INSTALLED ON TOP FLANGE OF BEAM.
 4. WHEN DIMENSIONS FROM E.O.S. TO BEAM CENTER IS NOT INDICATED, IT SHALL BE HALF THE BEAM FLANGE + 2" BUT NOT LESS THAN 6" U.O.N.
 5. COORDINATE WITH ARCH, MEP EQUIPMENTS, LANDSCAPING, AND CIVIL DRAWINGS FOR DIMENSIONS, ELEVATIONS, OPENINGS, SLOPES, STEPS, SLEEVES, AND ALL OTHER REQUIREMENTS.

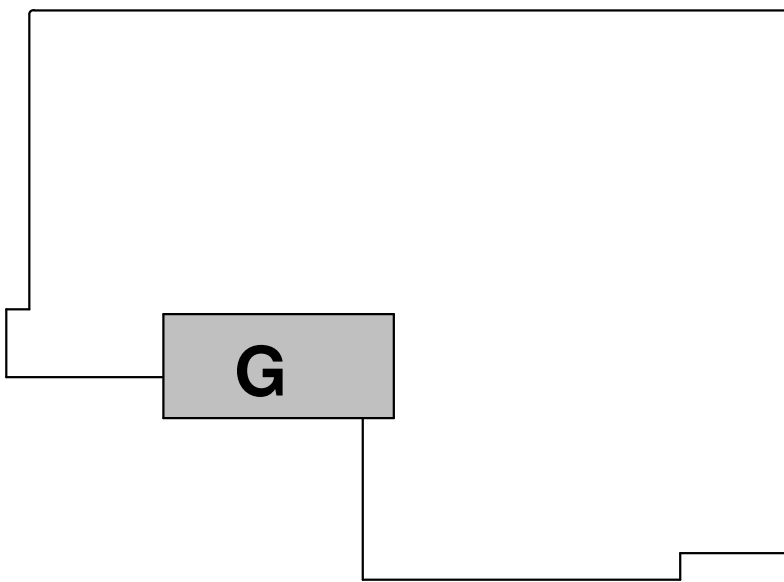


DEPRESS SLAB AT SHOWER - PLAN DETAIL
SCALE: N.T.S.

- NOTES:
1. COORDINATE W/ ARCH. DWGS. FOR SHOWER SHOWER LOCATIONS & SIZES.
 2. COORDINATE W/ ARCH. FOR SLOPING OVER LAYER (SLOPE TO DRAIN).
 3. COORDINATE STUD OF COMPOSITE SLAB HEIGHT AT SHOWER AREA TO BE 2 1/2" ONLY.

2 DEPRESS SLAB AT SHOWER - PLAN DETAIL
3/4" = 1'-0"

1 SECOND FLOOR FRAMING PLAN AREA G
1/8" = 1'-0"

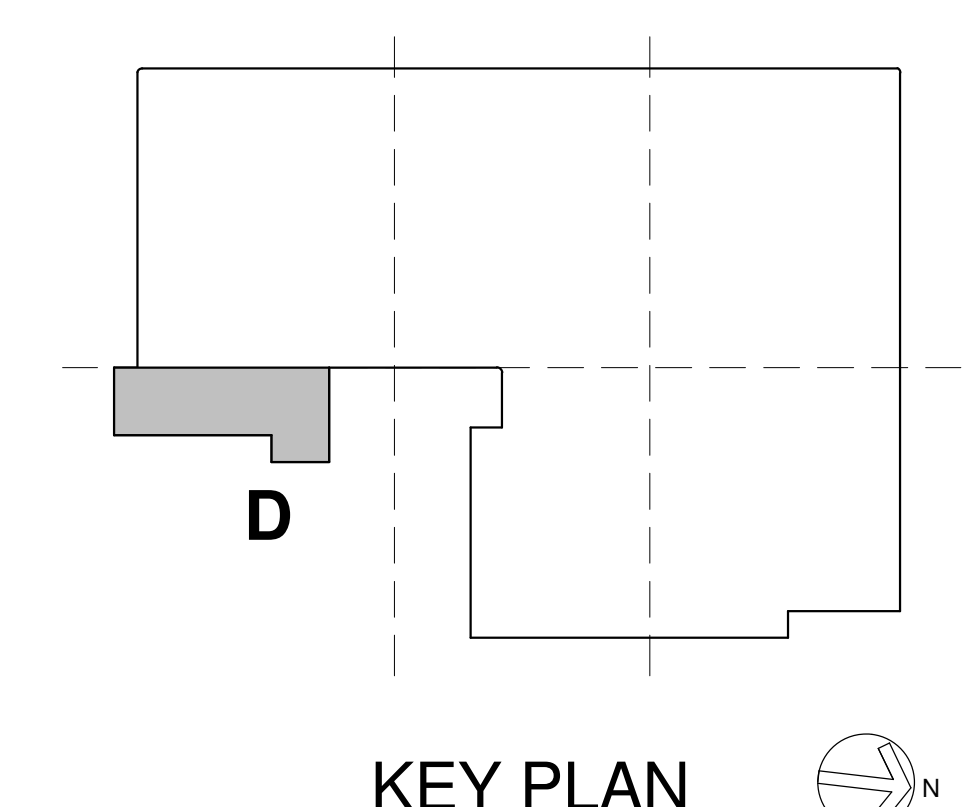


KEY PLAN

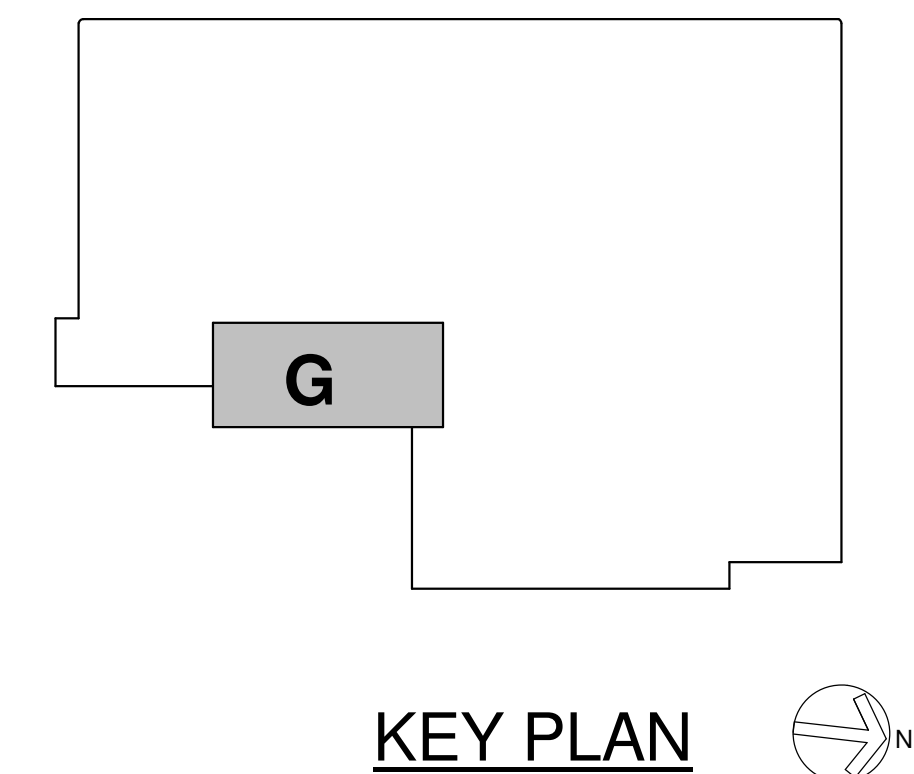


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				CSK/JM/B				RESTL DESIGNERS, INC. 702 RUSSELL AVENUE, SUITE 400 GAITHERSBURG, MD 20877				DRAWING TITLE:				DRAWING NO.	
				AJ				ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL				SECOND FLOOR FRAMING PLAN - AREA G				S-111	
				CHECKED BY:		As indicated		ARCHITECT: WENDEL								SHEET NO.	
				SCALE:				APPROVED BY: KM		DATE: 6/11/2014						09.013	
REV. DATE DESCRIPTION SHEET NO.				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.													
FILENAME:																	

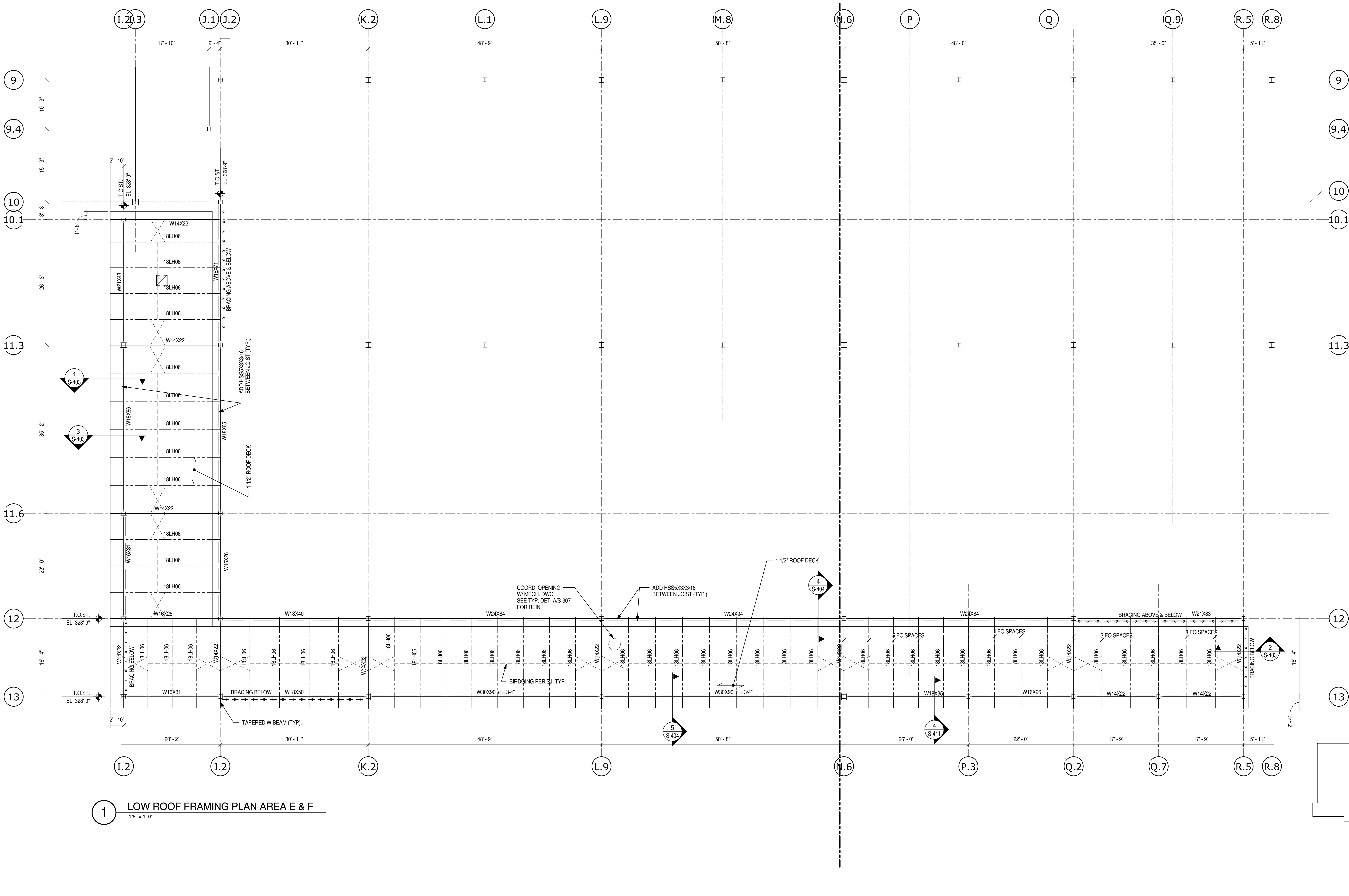
1. ROOF CONSTRUCTION SHALL BE 1 1/2"x16 GA. TYPE B ROOF DECK OVER LONG SPAN STEEL JOISTS @ 6'-0" O.C. MAX. OR SEE PLAN.
2. B.O.D. (BOTTOM OF DECK) ELEVATIONS AS SHOWN ON ROOF FRAMING TO ACCOMMODATE ROOF SLOPES PER ARCH. DWG.
3. STEEL FABRICATOR SHALL COORDINATE WITH THE G.C. OR THE MECHANICAL CONTRACTOR FOR THE PROPER LOCATION OF FRAMING AT ALL MECHANICAL UNITS AND ROOF OPENINGS.

[illegible]

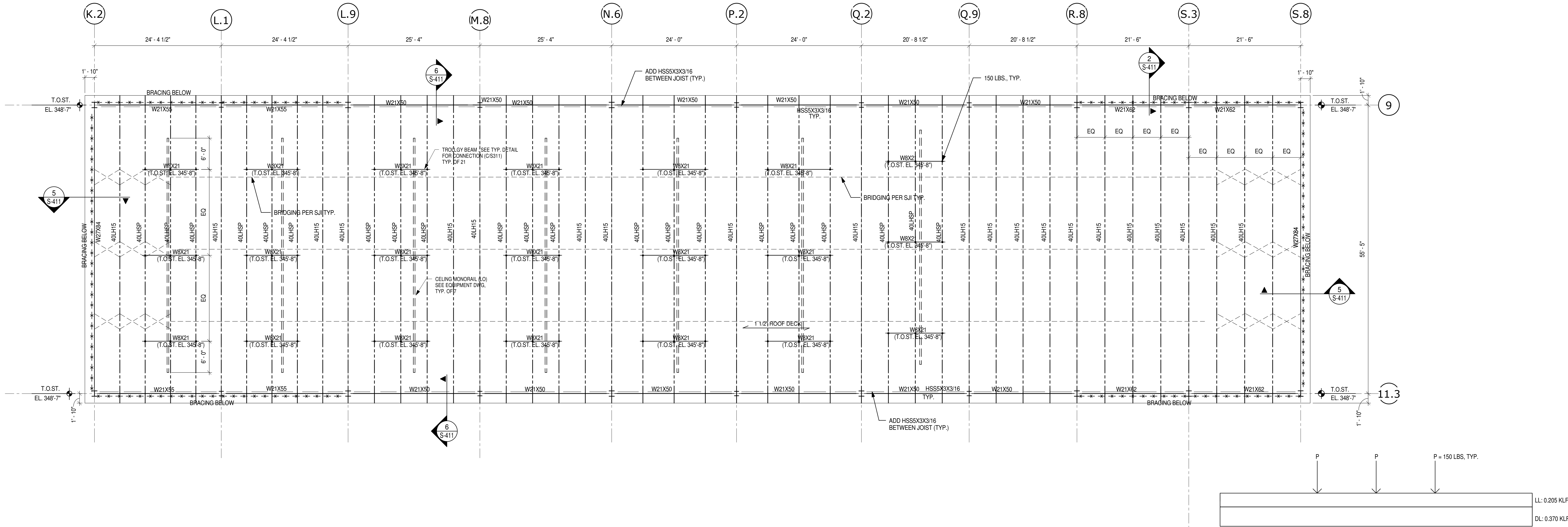
1. ROOF CONSTRUCTION SHALL BE 3"x18 G.A. TYPE N ROOF DECK OVER STEEL JOISTS FRAMING. SEE STRUCTURAL NOTE FOR FASTENING REQUIREMENTS.
2. B.O.D. (BOTTOM DECK) ELEVATIONS AS SHOWN ON ROOF FRAMING TO ACCOMMODATE ROOF SLOPES PER ARCH. DWG.
3. STEEL FABRICATOR SHALL COORDINATE WITH THE G.C. OR ALL MECHANICAL CONTRACTORS FOR THE PROPER LOCATION OF FRAMING AT THE MECHANICAL UNITS AND ROOF OPENINGS.
4. COORDINATE ALL JOIST SEAT DEPTHS (OPEN WEB JOISTS & STEEL MEMBERS) WITH SJI REQUIREMENTS.

[illegible]

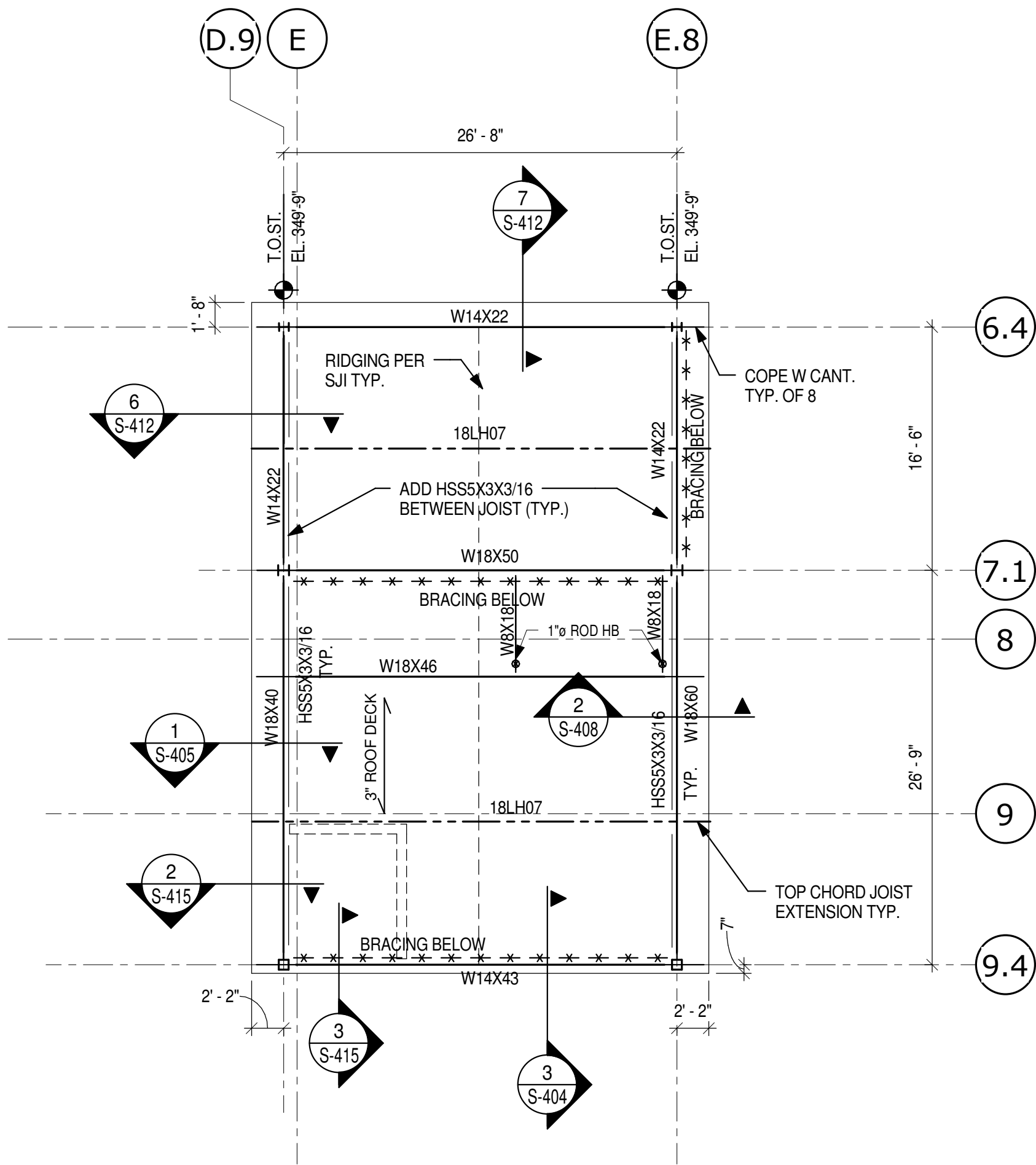
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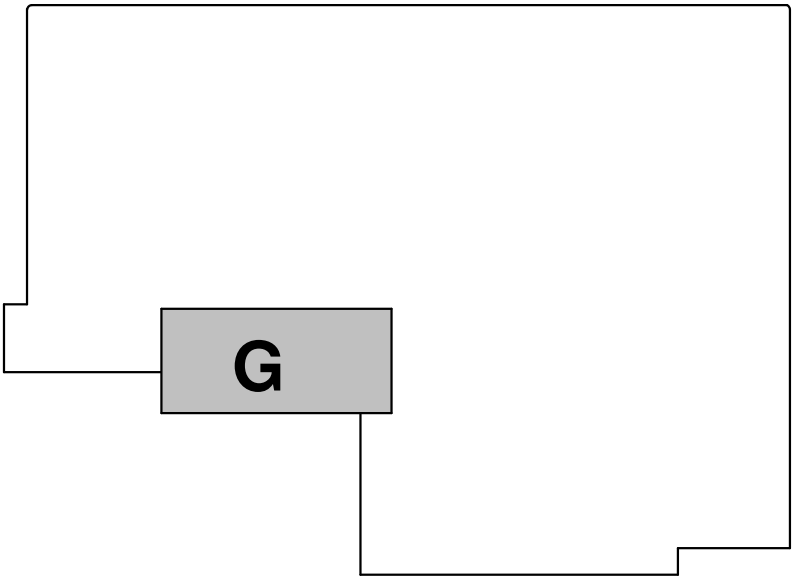
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- ROOF FRAMING NOTES:
1. ROOF CONSTRUCTION SHALL BE 3"x18 GA. TYPE N ROOF DECK OVER STEEL JOISTS FRAMING. SEE STRUCTURAL NOTE FOR FASTENING REQUIREMENTS.
 2. B.O.D. (BOTTOM OF DECK) ELEVATIONS AS SHOWN ON ROOF FRAMING TO ACCOMMODATE ROOF SLOPES PER ARCH. DWG.
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1 ROOF FRAMING PLAN HIGH - AREA G
1/8" = 1'-0"



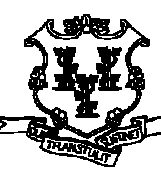
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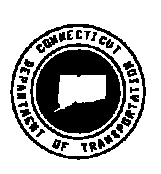
REV.	DATE	DESCRIPTION REVISIONS	SHEET NO.
FILENAME:			

THE INFORMATION, INCLUDING
ESTIMATED QUANTITIES OF
WORK, SHOWN ON THESE
SHEETS IS BASED ON LIMITED
INVESTIGATIONS BY THE STATE
AND IS IN NO WAY WARRANTED
TO INDICATE THE CONDITIONS OF
ACTUAL QUANTITIES OF WORK
WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:	CSK/JM/BC
CHECKED BY:	AJ
SCALE:	1/8" = 1'-0"



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



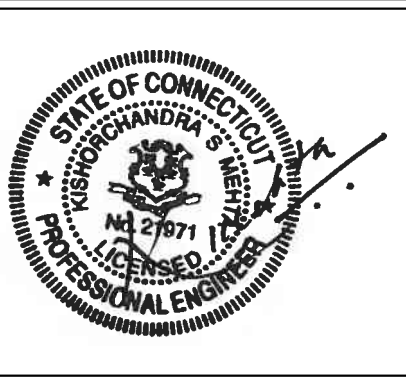
ARCHITECT: WENDEL

APPROVED BY: KM

ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS,
WENDEL

DATE: 6/11/2014

DESIGNED BY:
RESTL DESIGNERS, INC.
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:

WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT

ADDRESS:
FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:
HIGH ROOF FRAMING PLAN - AREA
G

PROJECT NO:
0431-0006

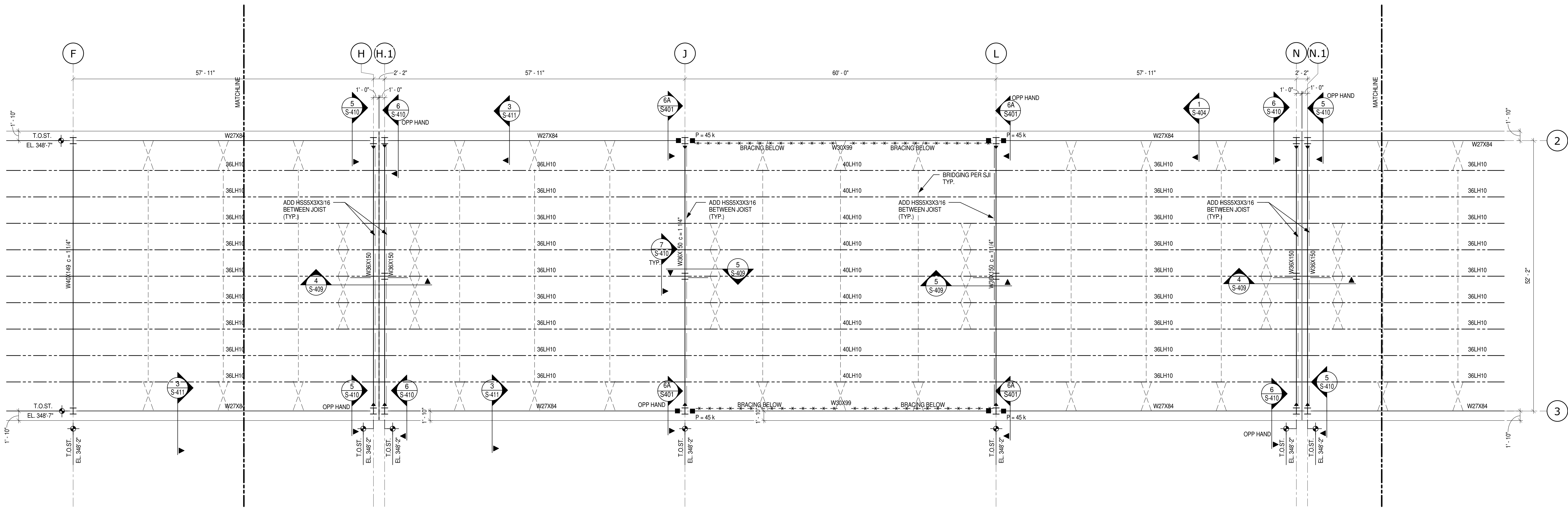
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SHEET NO.
09.023

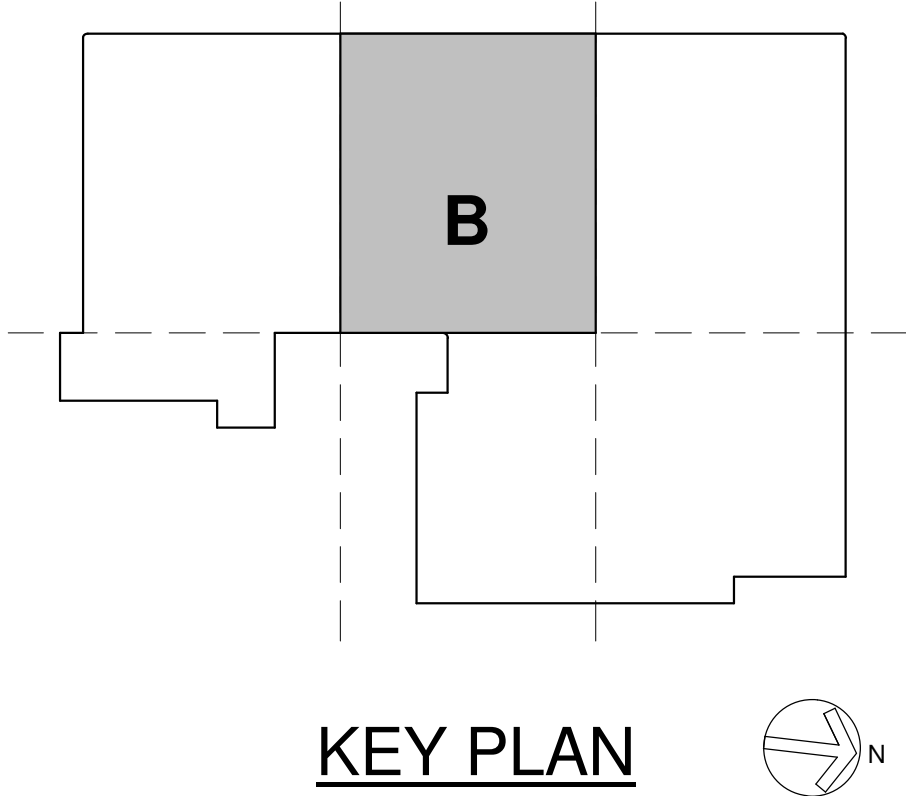
1. ROOF CONSTRUCTION SHALL BE 1" 1/2"x16 GA. TYPE B ROOF DECK OVER LONG SPAN STEEL JOISTS @ 6" O.C. MAX. OR SEE PLAN.
2. B.O.D. (BOTTOM OF DECK) ELEVATIONS AS SHOWN ON ROOF FRAMING TO ACCOMMODATE ROOF SLOPES PER ARCH. DWG.
3. STEEL FABRICATOR SHALL COORDINATE WITH THE G.C. OR THE MECHANICAL CONTRACTOR FOR THE PROPER LOCATION OF FRAMING AT ALL MECHANICAL UNITS AND ROOF OPENINGS.

[illegible]

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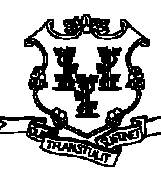
1 HIGH ROOF FRAMING PLAN AREA B
1/8" = 1'-0"




REV.	DATE	DESCRIPTION REVISIONS	SHEET NO.
FILENAME:			

THE INFORMATION, INCLUDING
ESTIMATED QUANTITIES OF
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WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:	CSK/JM/BC
CHECKED BY:	AJ
SCALE:	1/8" = 1'-0"



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



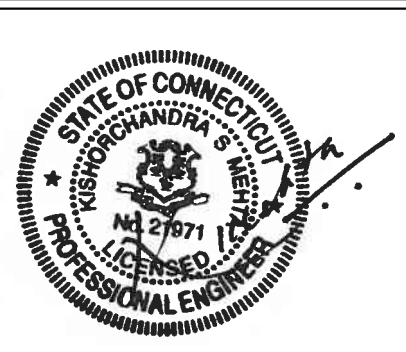
ARCHITECT: WENDEL

APPROVED BY: KM

ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS,
WENDEL

DATE: 6/11/2014

DESIGNED BY:
RESTL DESIGNERS, INC.
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:
**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

ADDRESS:
**FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787**

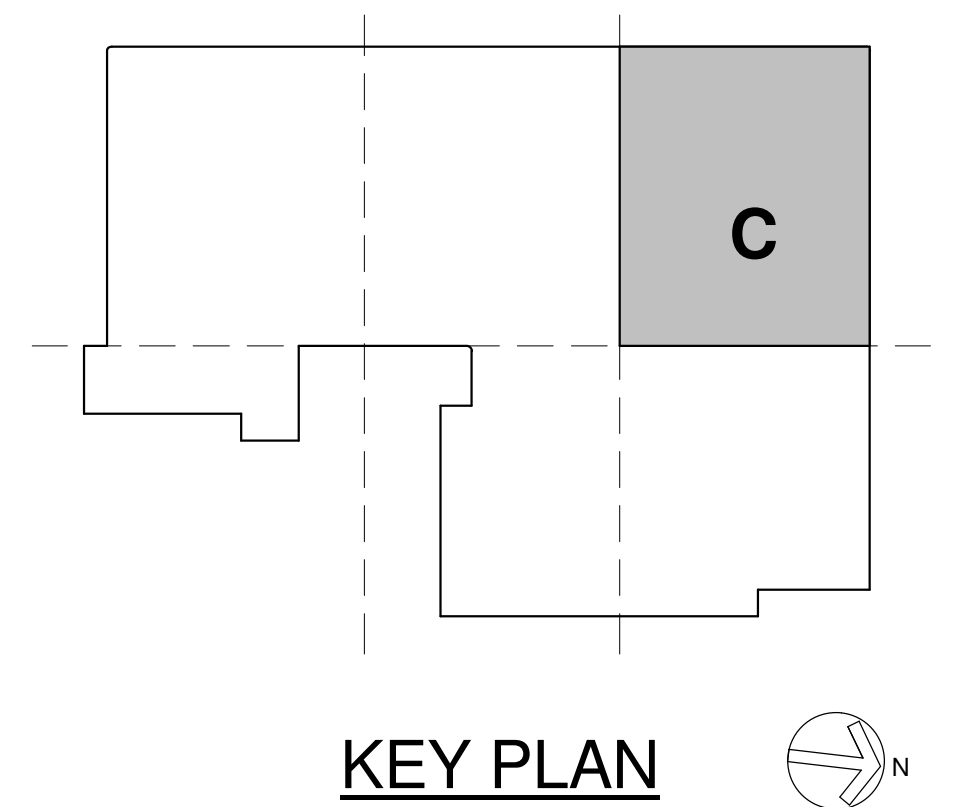
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**HIGH ROOF FRAMING PLAN - AREA
B**

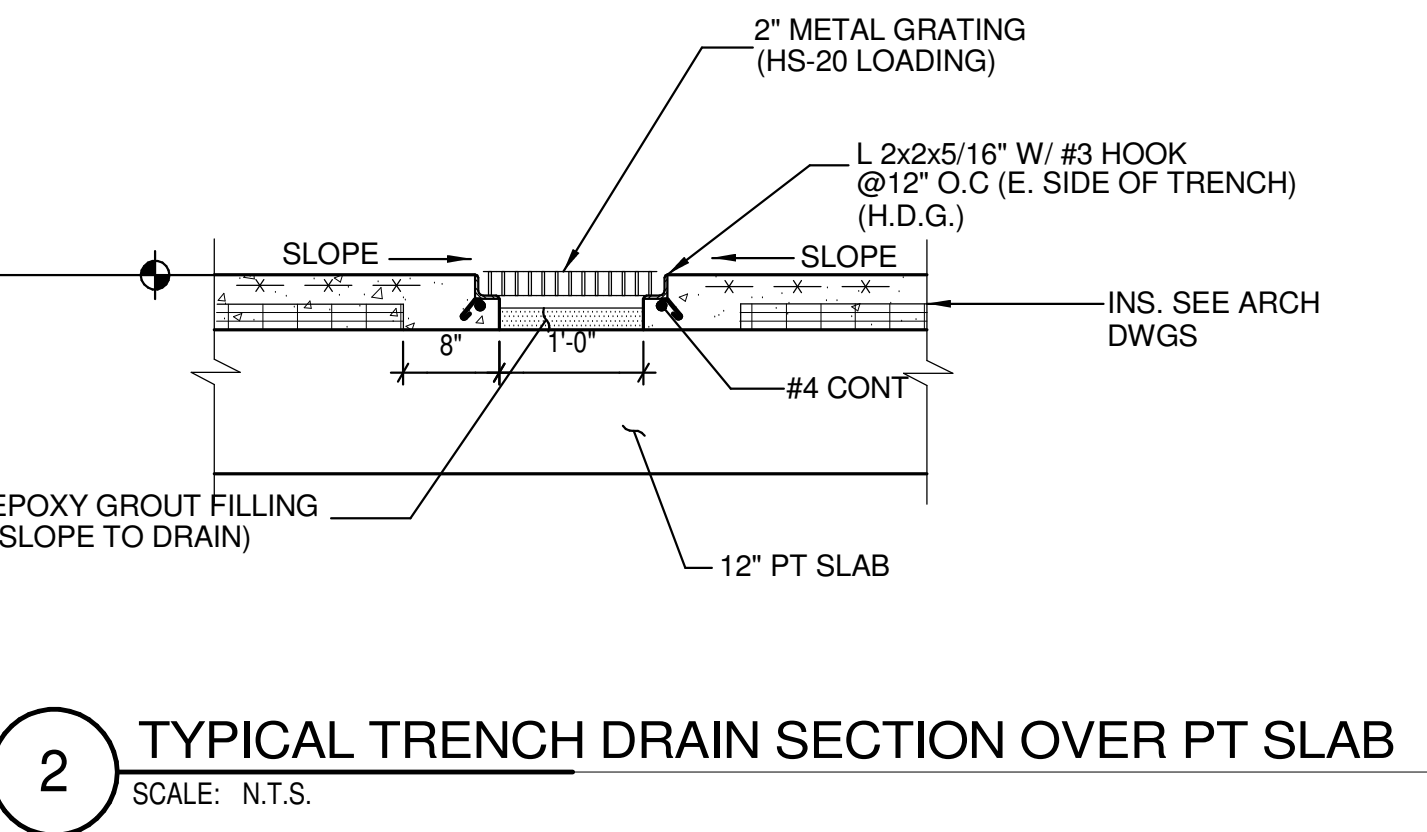
PROJECT NO.
0431-0006

DRAWING NO.
S-123

SHEET NO.
09.025

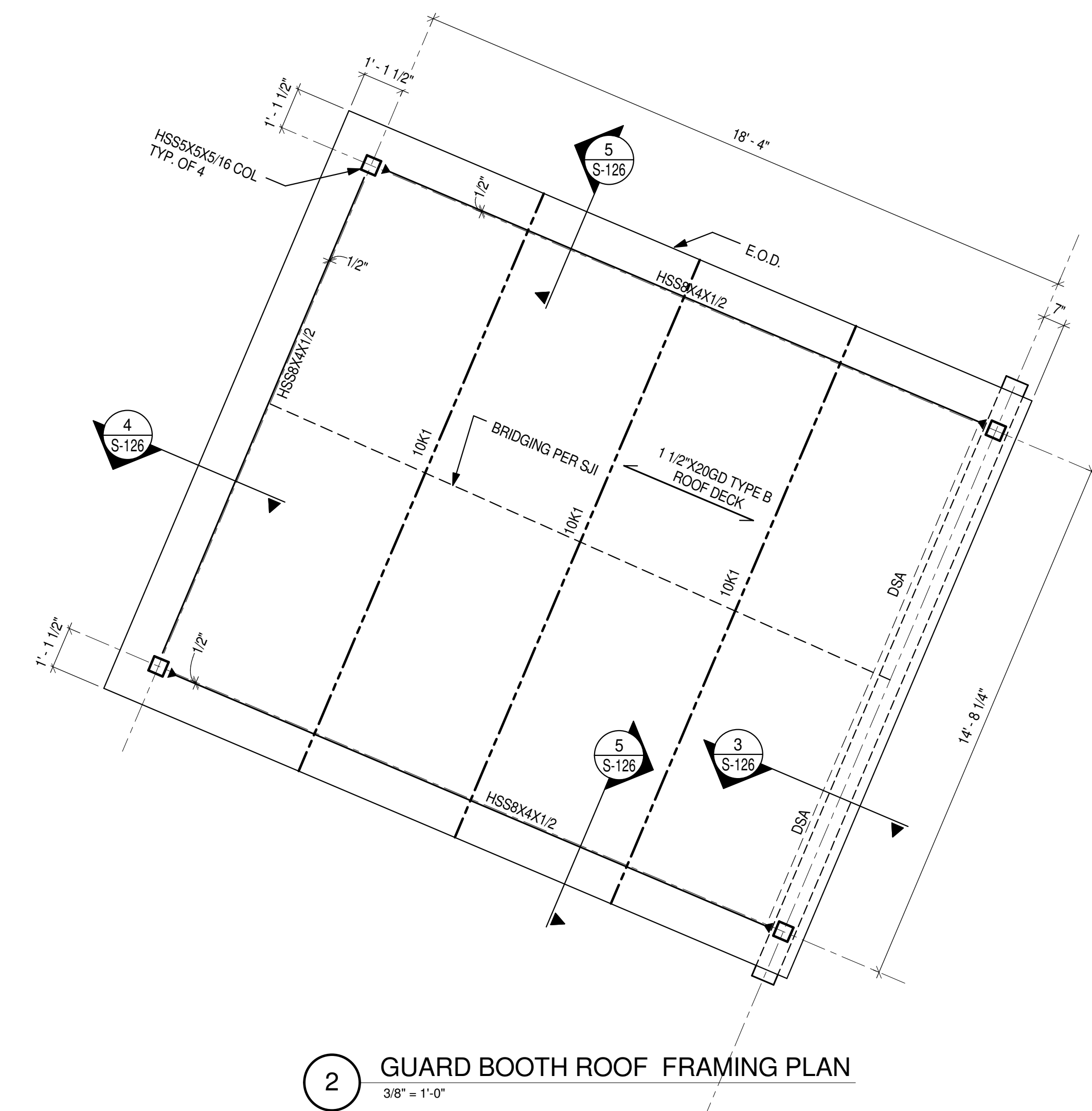
1. ROOF CONSTRUCTION SHALL BE 1 1/2"x18 GA. TYPE B ROOF DECK OVER LONG SPAN STEEL JOISTS @ 6'-0" O.C. MAX. OR SEE PLAN.
2. B.O.D. (BOTTOM OF DECK) ELEVATIONS AS SHOWN ON ROOF FRAMING TO ACCOMMODATE ROOF SLOPES PER ARCH. DWG.
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[illegible]

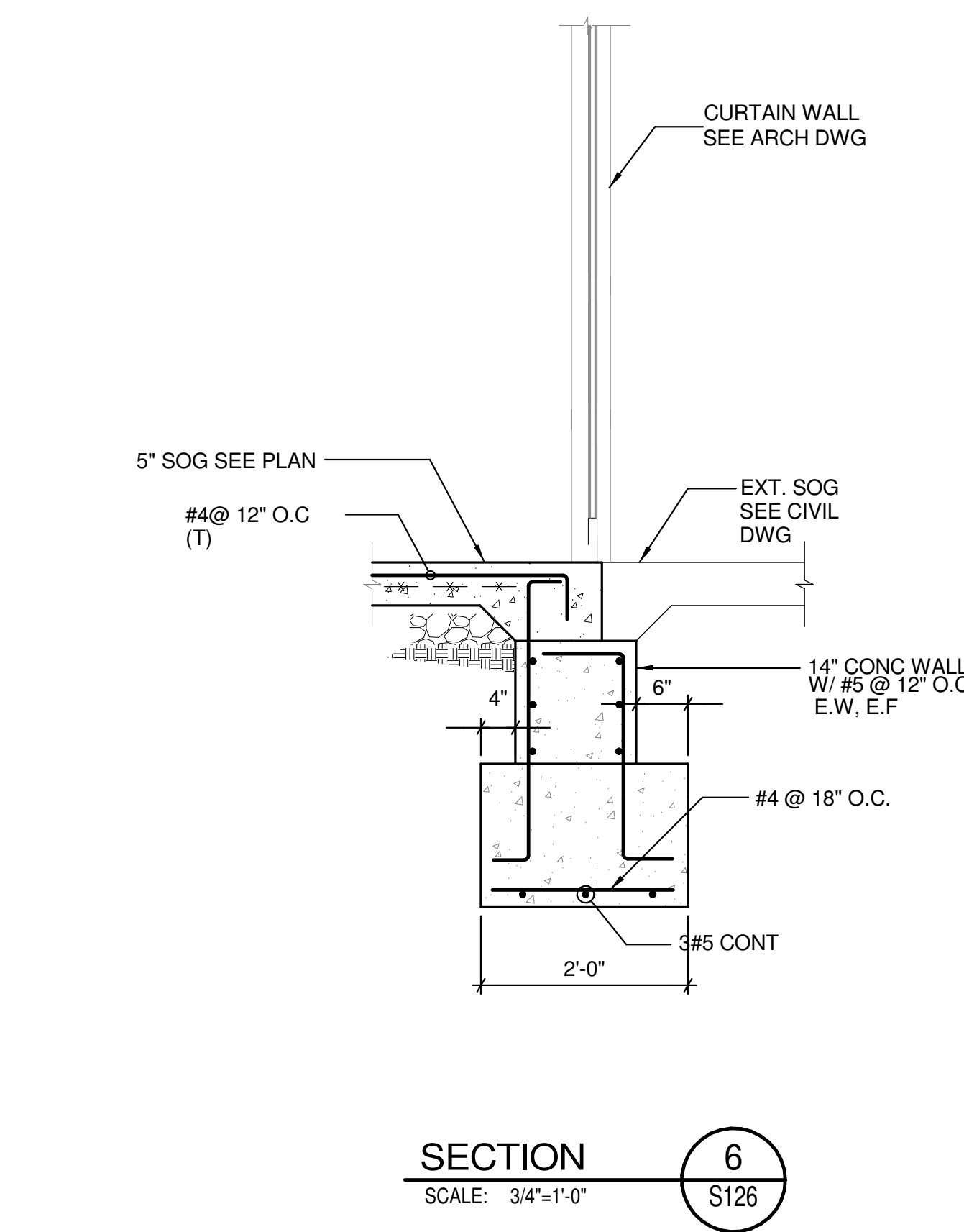
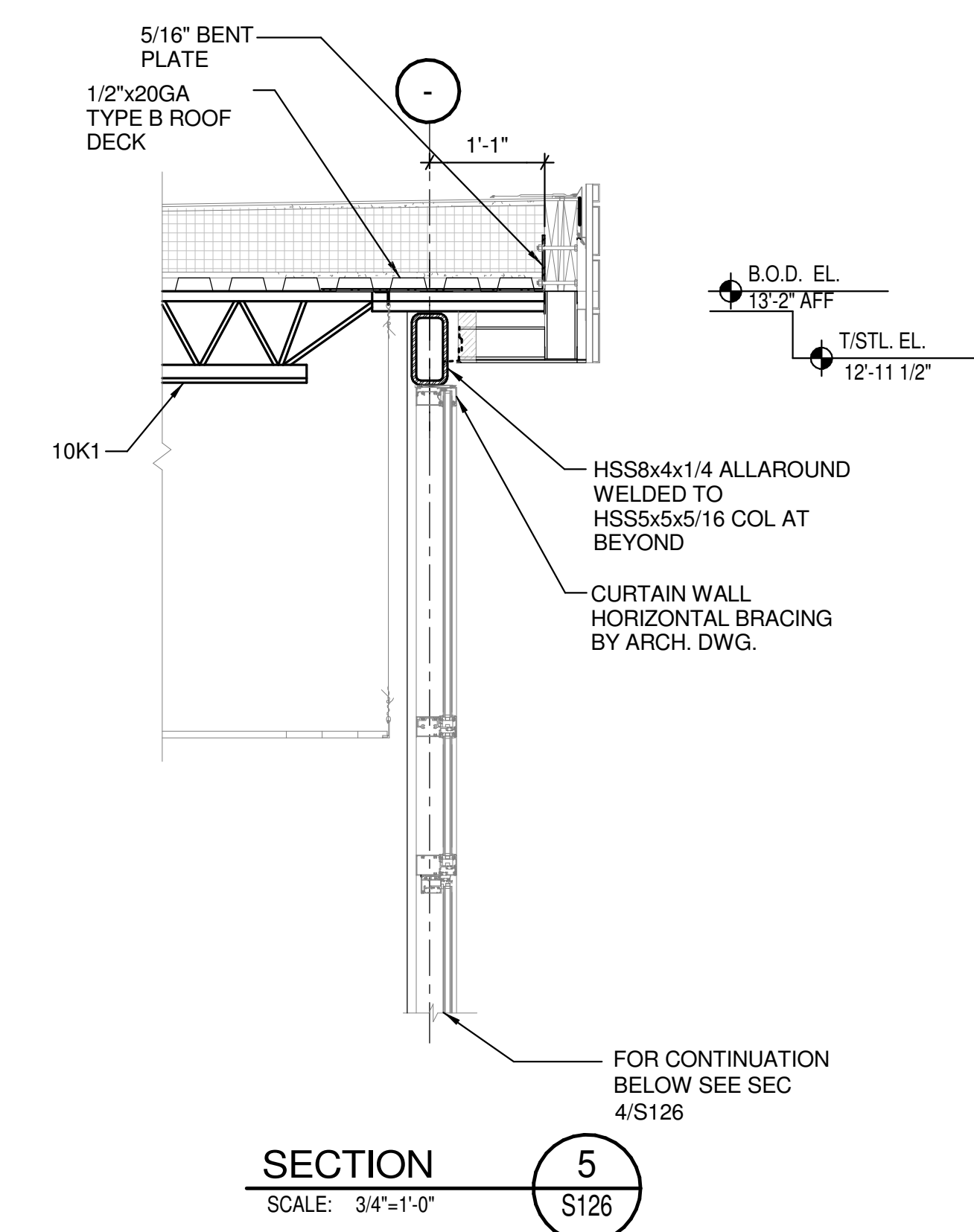


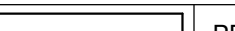
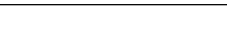
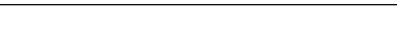

KEY PLAN

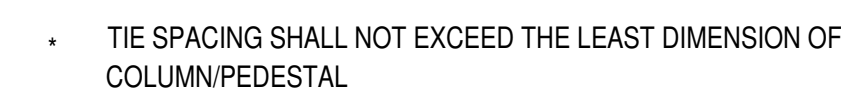
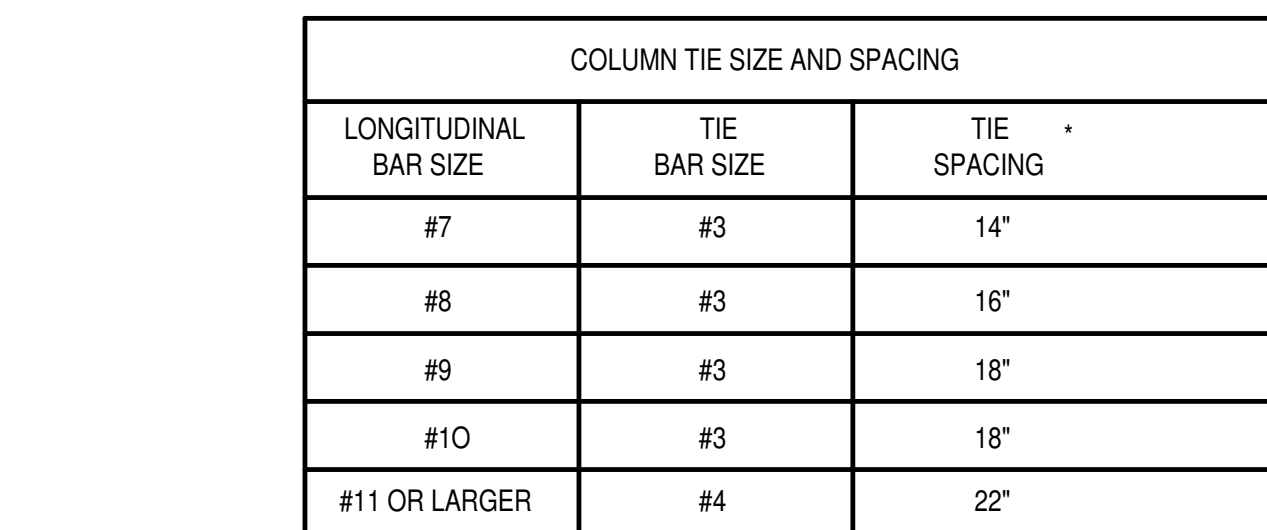
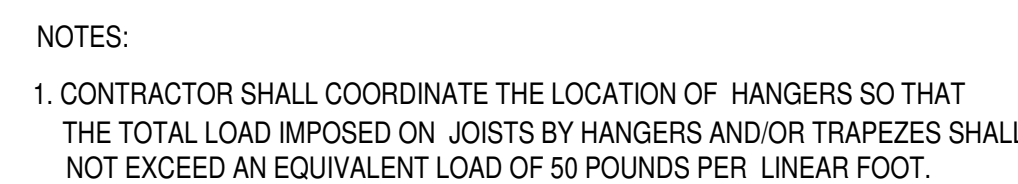
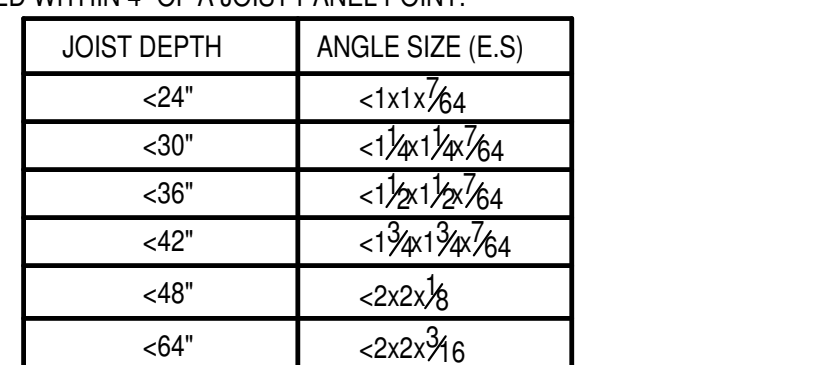
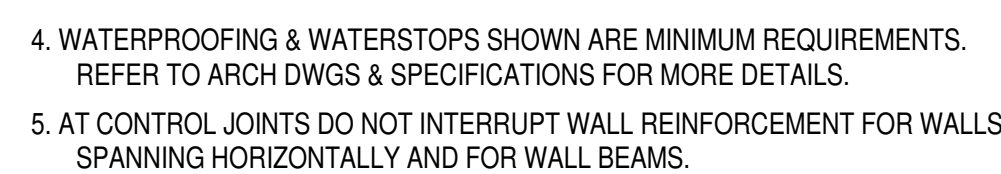
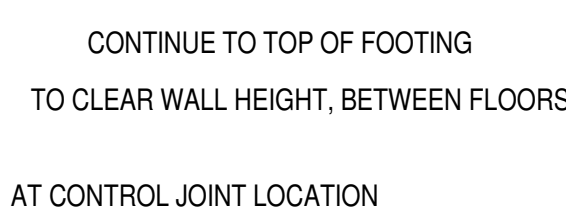
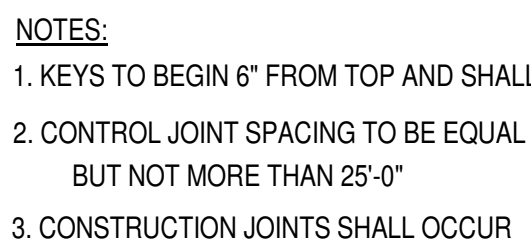
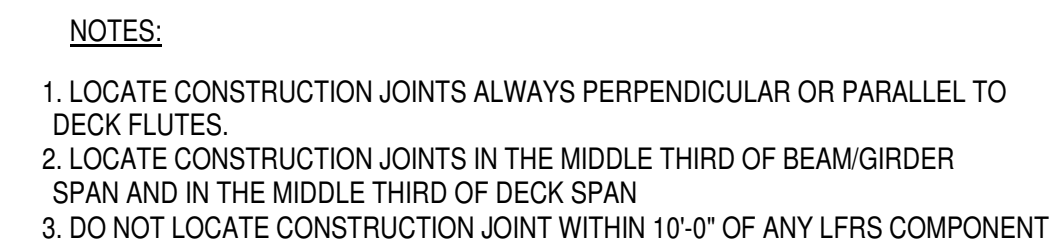
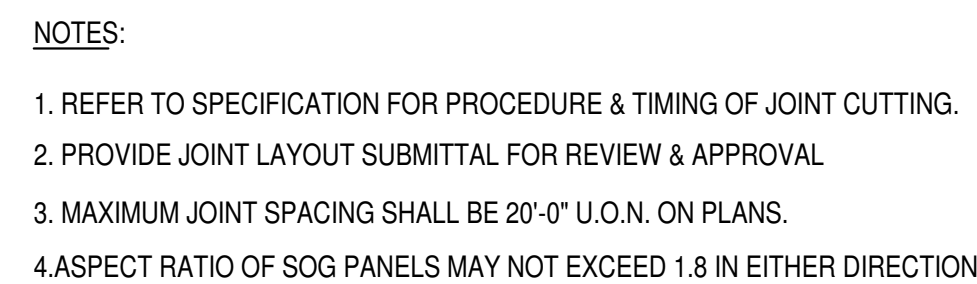
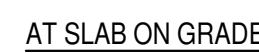
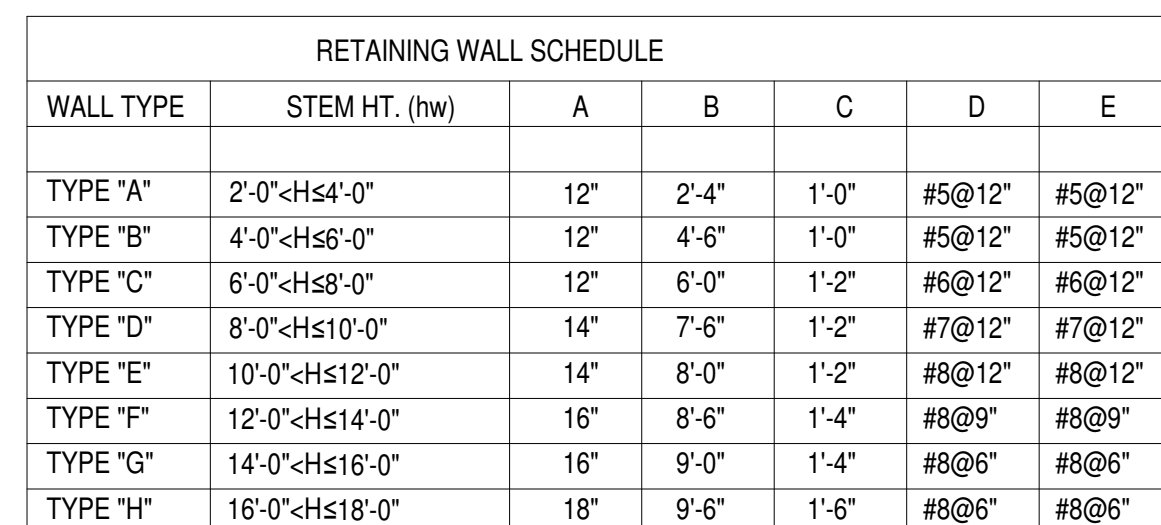
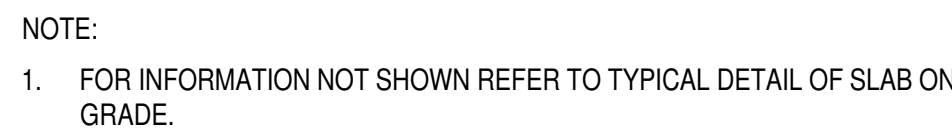
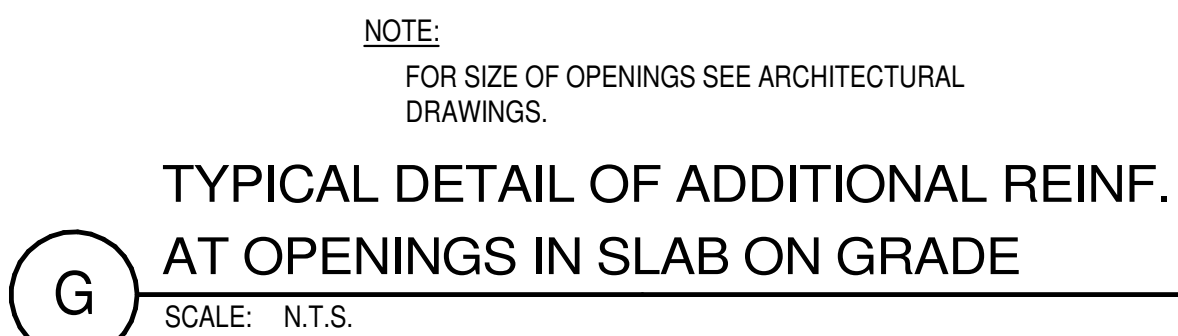
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		<div>DESIGNER/DRAFTER:</div> <div>CSK/JM/BC</div> <div>Checker</div> <div>CHECKED BY:</div> <div>SCALE:</div> <div>As indicated</div>		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div> <div>ARCHITECT: WENDEL</div> <div>APPROVED BY: Approver</div> <div>ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL</div> <div>DATE: 6/11/2014</div>		<div>DESIGNED BY:</div> <div>RESTL DESIGNERS, INC. 702 RUSSELL AVENUE, SUITE 400 GAITHERSBURG, MD 20877</div> <div>SEAL OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION JUN 1971 GENERAL ENG.</div>		<div>PROJECT TITLE:</div> <div>WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</div>		<div>ADDRESS:</div> <div>FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787</div>		<div>PROJECT NO:</div> <div>0431-0006</div>	
												<div>DRAWING NO.</div> <div>S-125</div>					
<div>REV.</div> <div>DATE</div> <div>DESCRIPTION</div> <div>REVISIONS</div>				<div>SHEET NO.</div>								<div>PT TOPPING SLAB CJ PLAN</div>					
<div>FILENAME:</div>														<div>SHEET NO.</div> <div>09.027</div>			



- ROOF FRAMING NOTES:**
1. ROOF CONSTRUCTION SHALL BE 1 1/2"x20 GA. TYPE B ROOF DECK OVER STEEL JOISTS FRAMING. SEE STRUCTURAL NOTE FOR FASTENING REQUIREMENTS.
 2. B.O.D. (BOTTOM OF DECK) ELEVATIONS AS SHOWN ON ROOF FRAMING TO ACCOMMODATE ROOF SLOPES PER ARCH. DWG.
 3. STEEL FABRICATOR SHALL COORDINATE WITH THE G.C. OR THE MECHANICAL CONTRACTOR FOR THE PROPER LOCATION OF FRAMING AT ALL MECHANICAL UNITS AND ROOF OPENINGS.
 4. COORDINATE ALL JOIST SEAT DEPTHS (OPEN WEB JOISTS & STEEL MEMBERS) WITH SJI REQUIREMENTS.
 5. "DSA" INDICATES TYPICAL DECK SUPPORT ANGLE L5x3 1/2x5/16 (LLV) W/5/8" Ø x5" EMBED. HIT-150 ADH ANCHORS @ 16" O.C.



				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.				DESIGNER/DRAFTER: CSK/JM/BC Checked As indicated				<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div> <div></div> <div>DESIGNED BY: RESSL DESIGNERS, INC. 702 RUSSELL AVENUE, SUITE 400 GAITHERSBURG, MD 20877</div> <div></div> <td colspan="4">PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</td> <td colspan="4">ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787</td> <td colspan="4">PROJECT NO 0431-0006</td>				PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT				ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787				PROJECT NO 0431-0006			
								CHECKED BY: SCALE: ARCHITECT: WENDEL APPROVED BY:  Approver ENGINEERS: RESSL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL DATE: 6/11/2014				DRAWING TITLE: GUARD BOOTH FRAMING PLAN AND SECTIONS				DRAWING NO. S-126											
REV. DATE DESCRIPTION REVISIONS SHEET NO.																SHEET NO. 09.028											
FILENAME:																											



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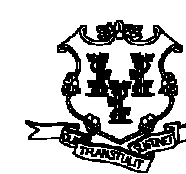
CSK/JM/B

CHECKED BY:

AJ

SCALE:

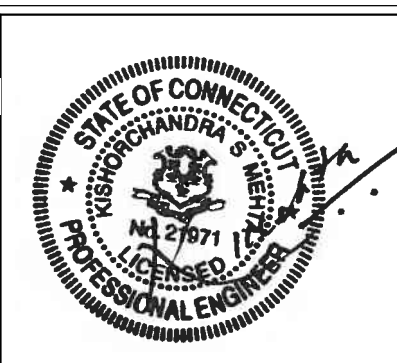
3/4" = 1'-0"



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



DESIGNED BY:
RESTL DESIGNERS, INC
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:

WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE

TYPICAL DETAILS

PROJECT NO.

0431-0006

DRAWING NO.

S-301

SHEET NO.

09.029

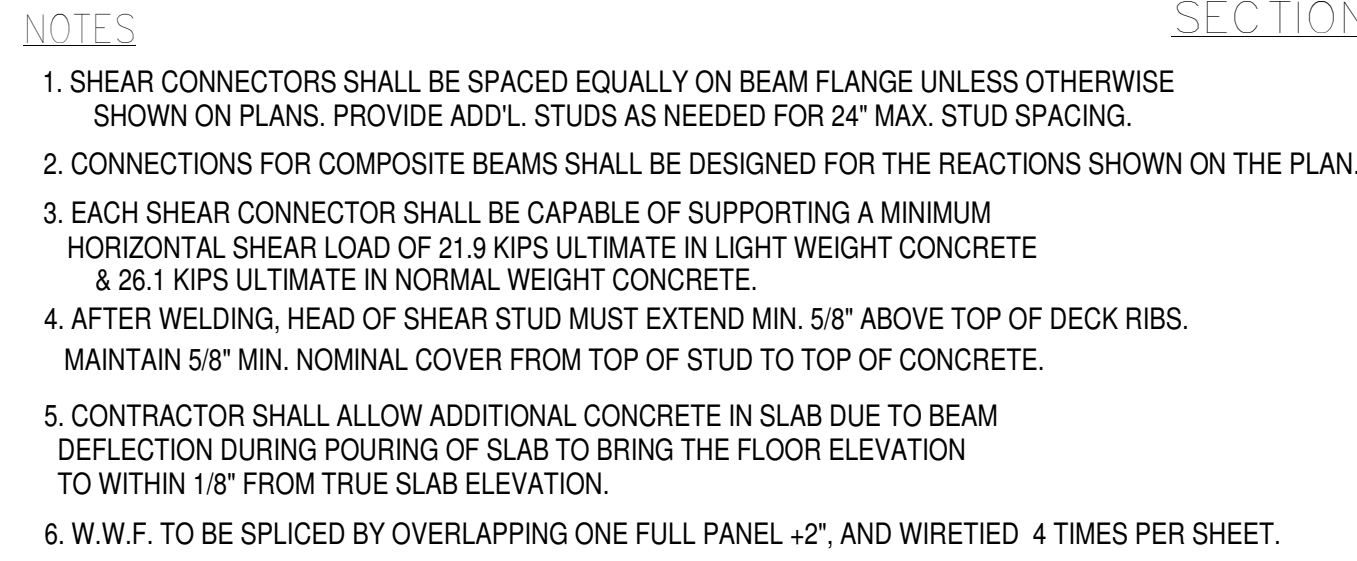


Diagram illustrating the beam layout and stud placement. The beam is supported by columns on the left and right. The layout shows the beam size (W27x64 [88] c=1) and the number of studs to be placed uniformly along the length (72 K). The diagram also indicates the upward camber at mid-span (no camber when not shown) and the reaction at the ends. The beam is divided into sections with stud counts: [20] and [10]. The diagram includes a legend for non-uniform placing.

NOTE: PLACING

1. NO STUDS SHOWN: PLACE STUDS @24" O.C

2. IF # STUDS IN SEGMENT IS LESS THAN SEGMENT LENGTH, PROVIDE STUDS @24" O.C AND FILL RIBS FROM ENDS OF BEAM

3. IF # STUDS IN SEGMENT IS GREATER THAN SEGMENT LENGTH, PROVIDE STUDS @ 12" O.C. AND PLACE 2ND STUD IN RIBS STARTING FROM ENDS OF BEAM

• 8'-0" FOR DECK PARALLEL TO E.O.S.
• EXTENDED TO NEXT BEAM +1'-0" (5'-0" MIN.) FOR DECK PERPENDICULAR TO E.O.S.

SEE PLAN

BAR CHAIR RECD OVER FIRST RIB

3/4" CLR.

POUR STOP. SEE TABLE

2#4 CONT. (SPLICE 30")

#4@12" O.C. MIN. w/ 180° STD. HOOK. BAR MAY BE SKEWED IN ELEVATION TO FIT BEND WITHIN SLAB DEPTH

DECK PERPEND TO E.O.S.

SEE PLAN FOR COMP. SLAB CONSTRUCTION, DECK ORIENTATION

STL. BEAM SEE PLAN

1-12

POUR STOP TABLE FOR SLAB OF LT. WT. CONC. NOT THICKER THAN 6 1/4" (DECK PARALLEL TO E.O.S.)	
DISTANCE "A"	POUR STOP THICKNESS
≤ 4"	14GA
≤ 8"	12GA
≤ 10"	10GA
≤ 14"	3/16"

NOTES:

1. DETAIL SHOWS MINIMUM REQUIREMENTS FOR UNLOADED SLAB EDGE. SEE SPECIFIC SECTIONS FOR CASES WHERE CMU WALLS OR EXTERIOR CLADDING ARE SUPPORTED ON THE SLAB EDGE.
2. DETAIL IS EQUALLY APPLICABLE REGARDLESS OF DECK SPAN DIRECTION.
3. EXTEND DECK TO E.O.S. WHEN DECK IS PERPENDICULAR TO E.O.S.
AND USE 14 GA. POUR STOP CONNECTED TO DECK EXTENSION.
4. AT ROOF DECK, INSTEAD OF POUR STOP, PLEASE PROVIDE MIN. 10 GA CLOSURE PIECE IF DECK RUNS PARALLEL TO EDGE BEAM.

TYPICAL BEAM GOING
THRU OPENING DETAIL

SCALE: N.T.S.

SEE ARCH. DWGS FOR CURB DIMENSION

SLAB ON METAL DECK

#4@12" E.W.F.

1'0" TYP.

1#5 IN EA OF 2 RIBS, EXTEND TO 24" PAST BEAM E.S.

BEAM PARALLEL TO DECK



USE LONGER STUDS AS REQ'D.

W.W.F. SEE PLAN NOTES

24" MIN. CLEAR

SEE PLAN

6" WHERE NOT NOTED ON PLAN

3/16"

DEPRESSION SEE PLAN

MIN.

DECK ORIENTATION MAY BE DIFFERENT SEE PLAN

AS REQ'D. FOR DEPRESSION

3 1/2" MIN.

1/4" @ 24" O.C.

#4 @ 2" (5'-0")

5/16" THICK ANGLE OR BENT PLATE

3/16"

1:6

SECTION J1

VERTICAL BAR DIAMETER	TIES	
	BAR SIZE	SPACING
#5	#3	10"
#6	#3	12"
#7	#3	14"
#8	#3	16"
#9	#3	18"
#10	#3	18"
#11 OR LARGER	#4	18"

NOTES:

1. TIES SHALL BE ARRANGED SUCH THAT EVERY CORNER AND ALTERNATE LONGITUDINAL BAR SHALL HAVE LATERAL SUPPORT BY THE CORNER OF A TIE WITH AN INCLUDED ANGLE OF NOT MORE THAN 135 DEGREES. IF ANY BAR BE FARTHER THEN 6 INCHES CLEAR ON EACH SIDE ALONG THE TIE FROM A LATERALLY SUPPORTED BAR, LATERAL SUPPORT (SHOWN DOTTED) SHALL BE PROVIDED FOR THESE BARS.
2. IF THE DIMENSION A OR B IS LESS THAN THE TIE SPACING SHOWN, THE SPACING SHALL BE DECREASED TO EQUAL A OR B WHICHEVER IS SMALLER
3. IF X IS LESS THAN L_d, INCREASE AREA OF DOWELS BY L_d/X.
4. DEVELOPMENT LENGTH L_d TO BE DETERMINED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318, CHAPTER 12.

L 4x4x5/16 (CORNER STEEL ANGLE)
 W/ #4@ 18" O.C HOOK BAR
 COLUMN SEE CO
 STEEL CO
 SEE PLAN
 #8@ 18" O.C
 STEEL
 DOWE
 #4@18" O.C
 OPEN TIES
 4" MIN
 2 1/2"
 4" MIN
 24" MIN
 24" MIN

[illegible]

K LUBE ROOF CURB DETAIL
SCALE: N.T.S.

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AJ

3/4" = 1'-0"

[illegible]

ABBO



ARCHITECT: WENDEL

APPROVED BY: **KM**

ENGINE

DATE:	6/11/2014
-------	-----------

DESIGNED BY:
RESTL DESIGNERS, INC
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

TYPICAL DETAILS

PROJECT NO. _____

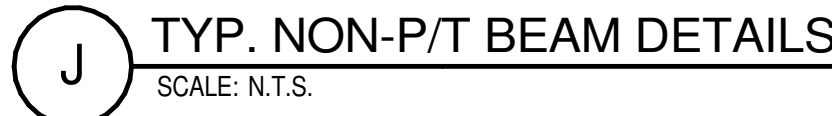
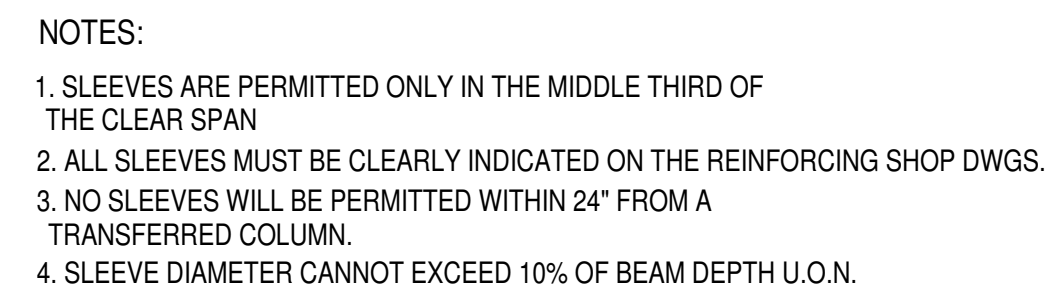
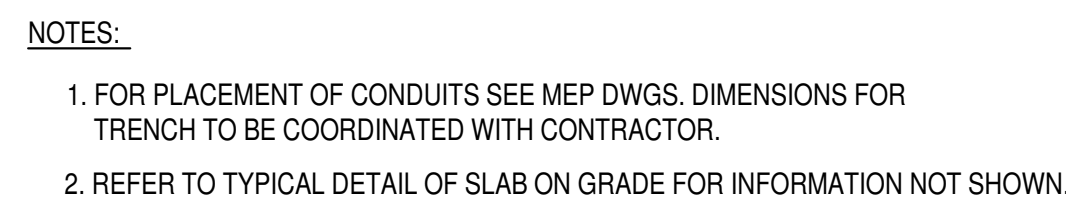
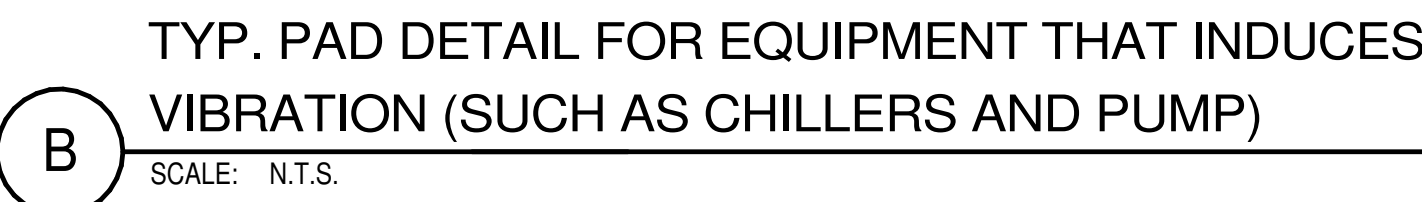
0431-0006

DRAWING NO.

S-302

SHEET NO.

09.030



1. THE SCHEDULE ABOVE INCLUDES SPLICE AND EMBEDMENT LENGTHS WHICH SATISFY THE PROJECT REQUIREMENTS AND THE FOLLOWING CRITERIA.

$f_y = 60,000$ psi
CONCRETE WEIGHT = 150 lb/cu.ft.

TENSION EMBEDMENT AND LAP SPLICE LENGTHS ARE DIVIDED INTO TWO CATEGORIES WHICH SHALL BE APPLIED AS FOLLOWS:

CATEGORY I: CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN db , OR CLEAR COVER NOT LESS THAN db , AND BEAM STIRRUPS OR COLUMN TIES THROUGHOUT L_d NOT LESS THAN THE CODE MINIMUM OR CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED NOT LESS THAN $2db$ & CLEAR COVER NOT LESS THAN db .

CATEGORY II: BARS NOT COVERED BY CATEGORY I.

2. USE COMPRESSION LAP SPLICE LENGTH (LCS) AT ALL COLUMN SPLICE LOCATIONS NOT SPECIFICALLY DETAILED AND UNLESS INDICATED OTHERWISE ON PLANS OR DETAILS. USE TENSION SPLICE FOR ALL OTHER SPLICES (UNLESS OTHERWISE SHOWN ON DRAWINGS). LAP SPLICE LENGTH ARE MULTIPLE OF TENSION DEVELOPMENT LENGTHS (l_d) (ACI 12.15.1):

CLASS A:	$1.0 l_d = L_{TE}$
CLASS B:	$1.3 l_d = L_{TS}$

3. TOP BARS ARE HORIZONTAL BARS PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

4. WHERE BARS OF DIFFERENT SIZE ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST.

5. FOR EPOXY COATED REINFORCING MULTIPLY THE ABOVE LENGTHS BY:

- FOR EPOXY COATED BARS W/ COVER LESS THAN $3db$ OR CLEAR SPACES LESS THAN $6db$ — 1.5
- FOR ALL OTHER EPOXY COATED BARS — 1.2

6. FOR REINFORCING IN LIGHT WEIGHT CONCRETE MULTIPLY THE ABOVE LENGTHS BY 1.3

(K) SCHEDULE OF REINFORCING EMBEDMENT & SPLICE LENGTH

PROJECT NO.	0431-0006
DRAWING NO.	S-303
SHEET NO.	09.031

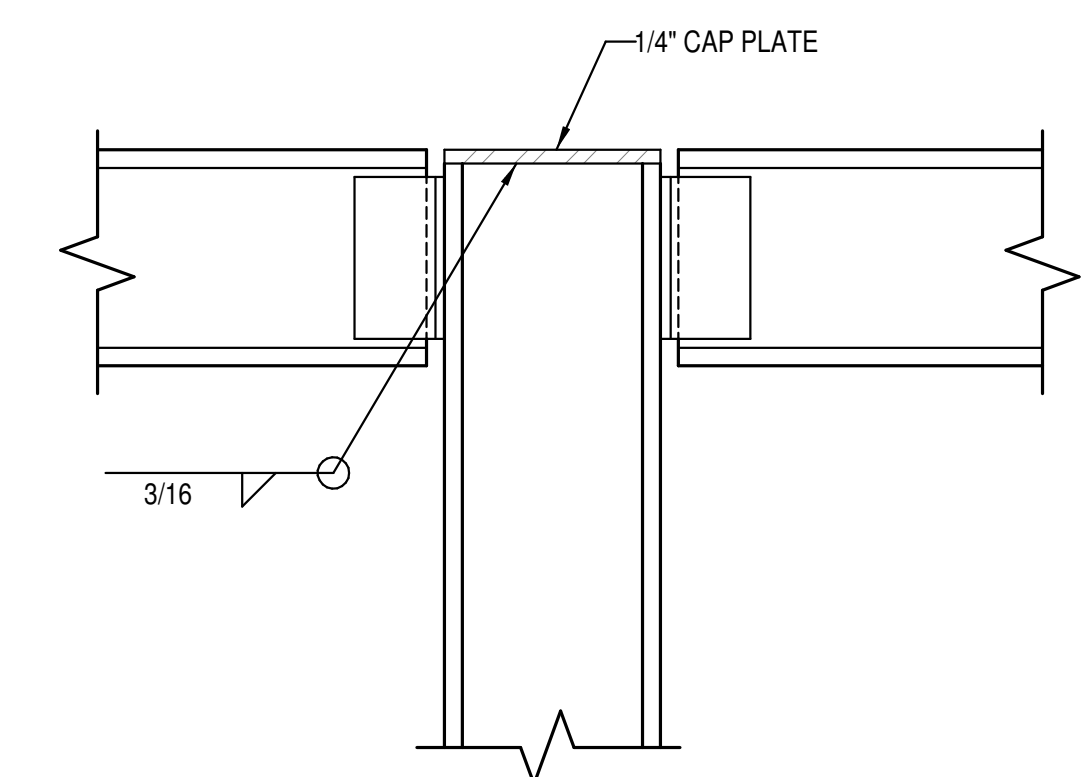
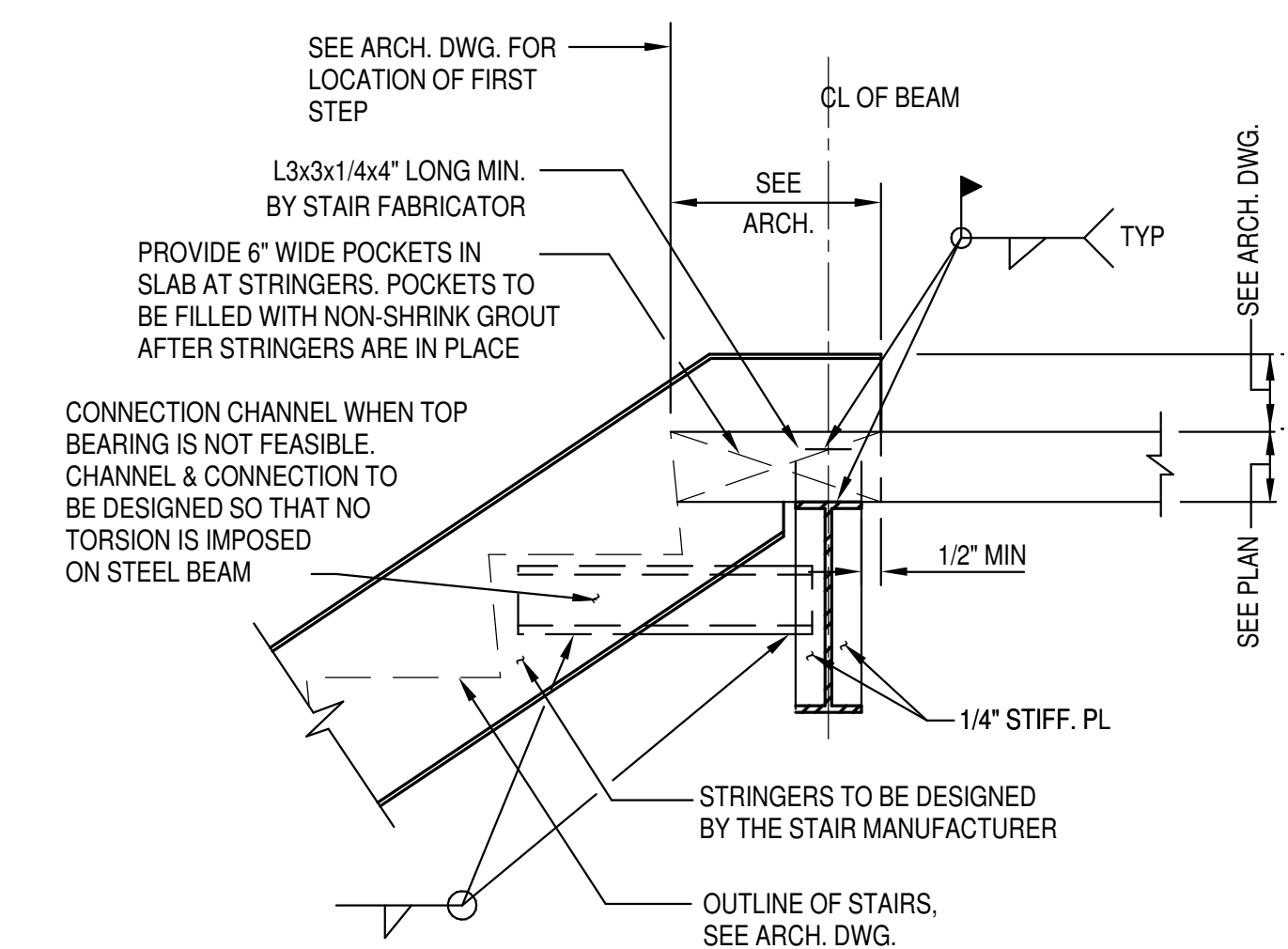
PLAN

Diagram illustrating the connection of a stringer to a slab, showing dimensions and components:

- SEE ARCH'L. FOR LOCATION OF FIRST STEP
- SEE ARCH.
- L3x3x1/4 4" LONG
- STRINGERS TO BE DESIGNED BY THE STAIR MANUFACTURER
- SLAB WHERE SHOWN ON PLAN
- 1/2" MIN
- 0" MIN
- 1/4" STIFF R.
- 6"
- EDGE OF SLAB (IF APPLICABLE)
- PROVIDE 9" x WIDE POCKETS IN SLAB AT STRINGERS. POCKETS TO BE FILLED WITH NON-SHRINK GROUT AFTER STRINGERS ARE IN PLACE
- SEE PLAN
- STEEL BEAM SEE PLAN
- LOCATION OF BEAM SEE PLAN
- TYP

Diagram illustrating a stair stringer connection to a wall. The connection is secured using 2 L3 1/2x1/2x3/8x4" LONG W/ 2-3/4" EXP BOLTS. The stringer is supported by a bracket. The connection is detailed with dimensions: a vertical offset of 1'-0" and horizontal offsets of 1'-0", 1'-0", 1'-0", and 1'-0" from the bracket to the wall. A 2#-5 BOT. ADD'L. bar is shown below the main reinforcement bar.

WEB OPENING

REINFORCING PLATES 1"

6"

1 1/2" RADIUS TYP. PRE-DRILL HOLES @ CORNERS PRIOR TO CUTTING OPENING

4°

TYP.

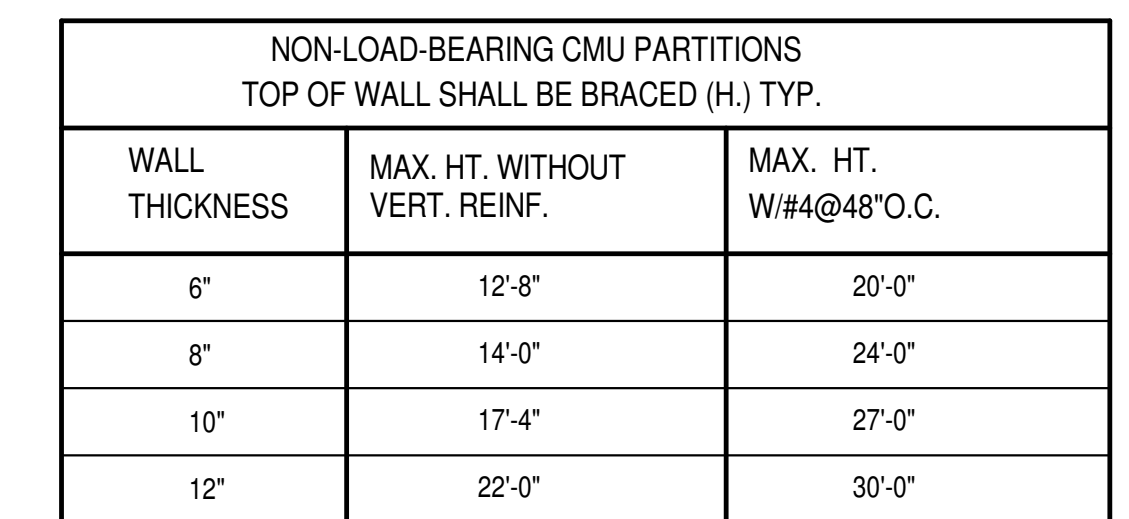
STEEL PIPE SLEEVE
4" LONG X 3/8" WALL THICKNESS MIN.

W SHAPE BEAM

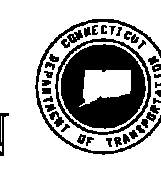
4°

TYP.

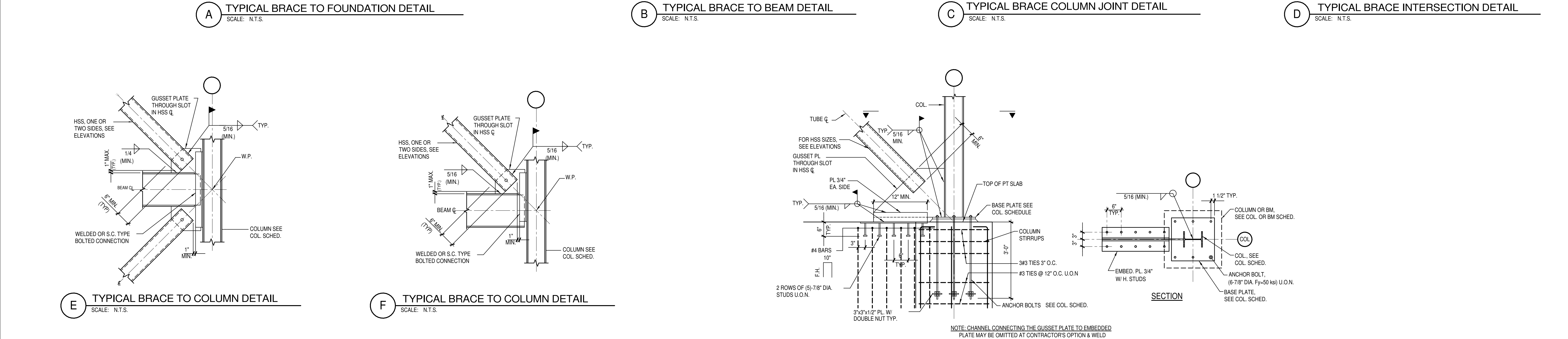
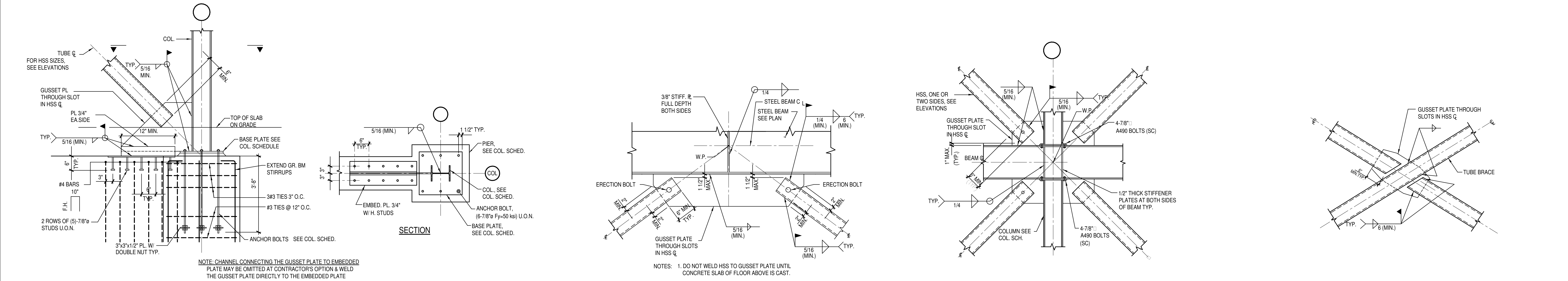
(E) BEARING
SCALE: N.T.S.



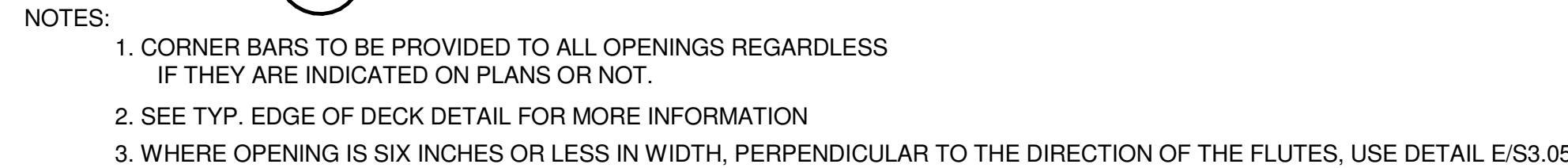
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ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO. 0431-0006
DRAWING TITLE:	TYPICAL DETAILS	DRAWING NO. S-304
		SHEET NO. 09 032



				DESIGNER/DRAFTER: CSK/JM/BC		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	DESIGNED BY: RESTL DESIGNERS, INC. 702 RUSSELL AVENUE, SUITE 400 GAITHERSBURG, MD 20877		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO. 0431-0006	
				CHECKED BY: AJ								DRAWING TITLE: TYPICAL DETAILS		DRAWING NO. S-305	
				SCALE: 3/4" = 1'-0"			ARCHITECT: WENDEL			ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL				SHEET NO. 09.033	
							APPROVED BY: KM			DATE: 6/11/2014					
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FILENAME:															

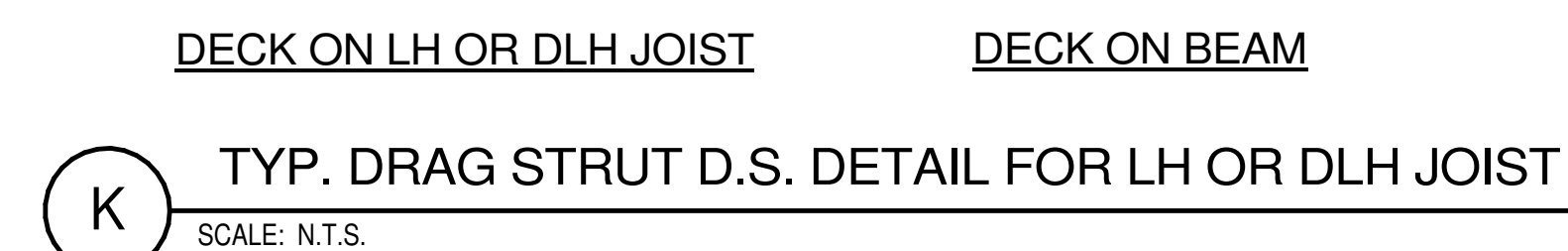
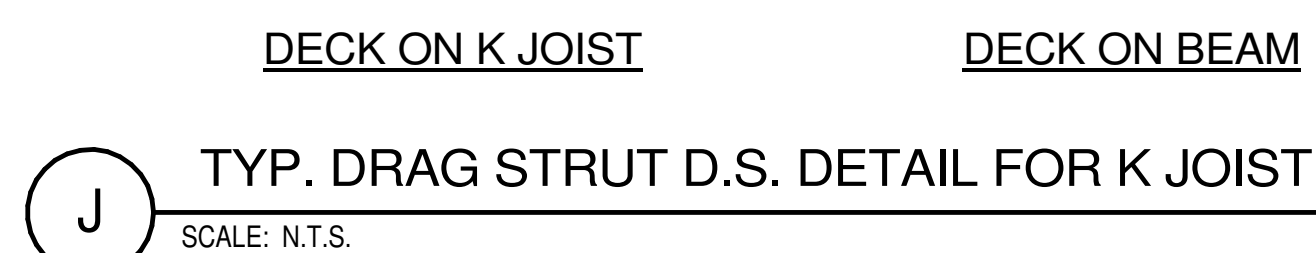


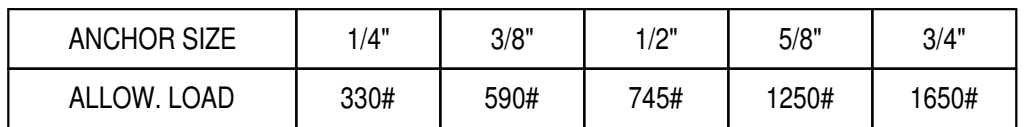
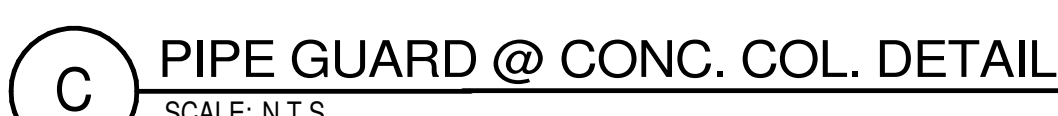
**TYPICAL SUSPENDED
EQUIPMENT/LIFTING EYE DETAILS**

SCALE: N.T.S.



MINIMUM STUD REQUIREMENTS FOR STEEL BEAM TO CONCRETE CONNECTION		
LOAD, P KIPS	PLATE SIZE (BxHxT)	NO. OF 3/4" HEADED STUDS IN EACH ROW
20	10"x10"x3/4"	2 STUDS x 2 ROWS
40	10"x16"x3/4"	2 STUDS x 3 ROWS
60	16"x16"x1"	3 STUDS x 3 ROWS
80	16"x22"x1"	3 STUDS x 4 ROWS
100	16"x28"x1"	3 STUDS x 5 ROWS
120	16"x28"x1 1/4"	3 STUDS x 5 ROWS
140	16"x34"x1 1/2"	3 STUDS x 6 ROWS



WEIGHT OF FILLED SCH 40 STEEL PIPE

NOTE: DISABLE THREADS BY TACK WELDING HANGER ROD TO ANCHOR BODY WHEN PLACED WITHIN 30' INLINE OF ANY RECIPROCATING MACHINERY.

NOTE: THESE HANGERS MAY ALSO BE USED FOR LIGHT (UNDER 1000#) EQUIPMENT. EQUIPMENT SHALL FASTEN TO TWO RAILS, EACH END OF EACH RAIL SHALL BE ANCHORED WITH A SINGLE (MIN $\frac{3}{8}$ ") ROD. SEE MECH FOR SEISMIC RESTRAINT. WHEN USED FOR EQUIPMENT SIZE ROD FOR 150% OF UNIT OPERATING WEIGHT.



A. PRE-STRESSING STEEL

- ### B. ANCHORAGE AND TENDON PLACEMENT

- ### C. STRESSING

-
- PLAN VIEW GROUT CAP**
- SECTION C-C**

- D** **SAMPLE 4-STRAND ANCHOR SYSTEM**
SCALE: N.T.S.

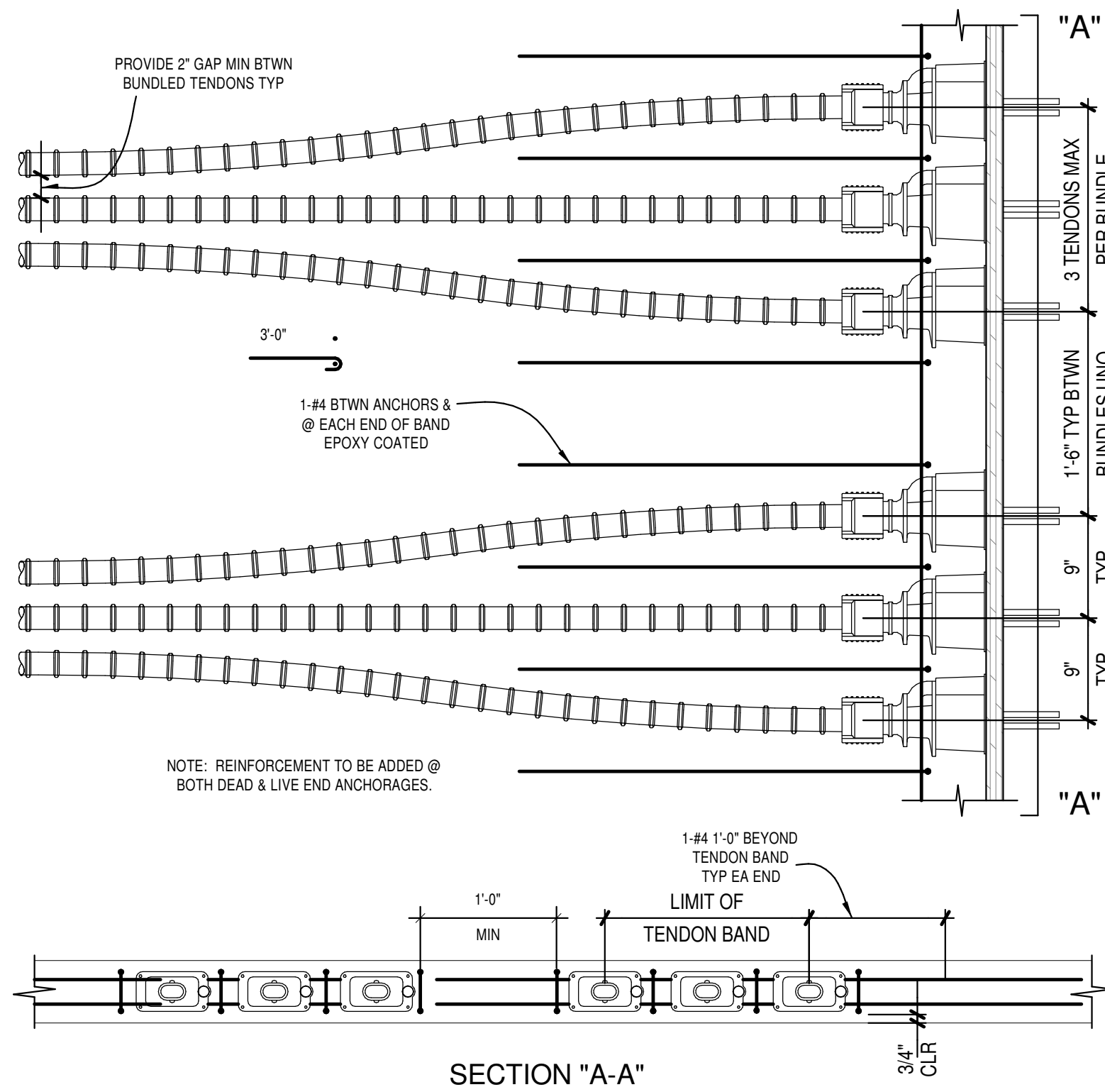
12. STRESSING PROCEDURE:
- A. STRESS SLAB AS STATED IN NOTE C.
 - B. MARK AND MEASURE STRAND TO DATUM POINT "ZERO" FOR FINAL MEASURED ELONGATION. LOCATE MARK AWAY FROM GRIPPERS SO MARK CAN BE LEGIBLE FOR FINAL ELONGATION MEASUREMENT.

- C. WHEN CONCRETE REACHES STRENGTH SPECIFIED ON NOTE C.1. STRESS ELEMENTS PER NOTE C.8 TO THE VALUES STATED ON NOTE C.4.
- D. RECORD FINAL ELONGATION MEASUREMENT.
- E. COMPARE DIFFERENCE IN ELONGATIONS FROM PART D & B TO 80% OF THE CALCULATED ELONGATION.
- F. SEND STRESSING REPORT TO EOR.
- G. ONCE STRESSING REPORT IS APPROVED BY EOR, BEAM & SLAB FORMS MAY BE REMOVED UNO.
- H. IMMEDIATELY RESHORE SLABS AND BEAMS.

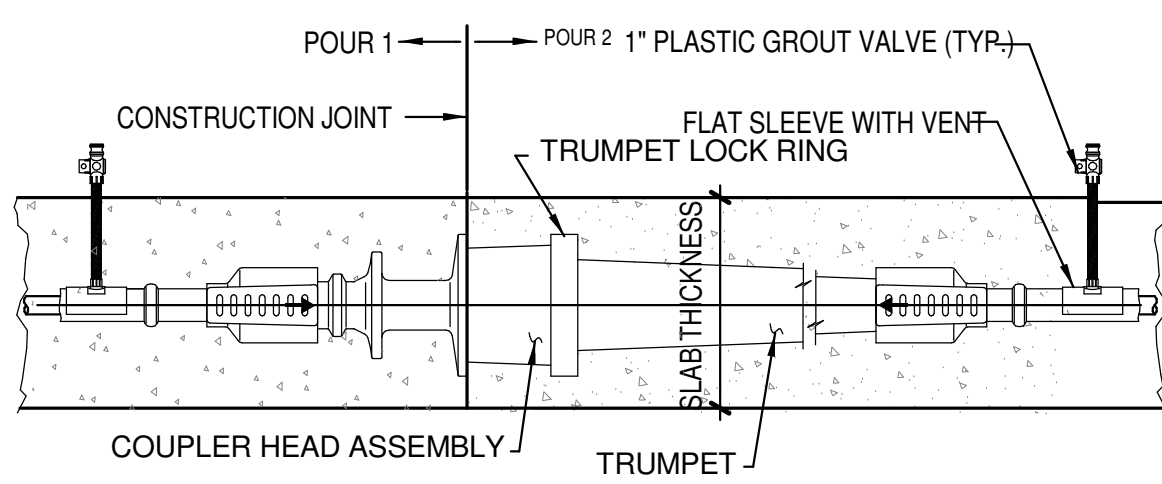
1. GROUT:
 - A. GROUT MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 18.18 OF ACI 318-02 AND RECOMMENDATIONS IN THE EVENT FIELD CONDITIONS FOR GROUTING POST-TENSIONING DEVICES."
 - B. GROUTING SHALL CONFORM TO THE REQUIREMENTS OF POST-RECOMMENDED PRACTICE FOR GROUTING POST-TENSIONING TENDONS."
2. ANCHORAGES:
 - A. ALL ANCHORAGES SHALL MEET THE MINIMUM REQUIREMENTS AS SET FORTH IN THE "ACCEPTANCE STANDARDS FOR POST-TENSIONING SYSTEMS" AS PREPARED BY THE POST-TENSIONING INSTITUTE.
 - B. ALL STRESSING ANCHORAGES SHALL BE CAPABLE OF LIFT-OFF, DE-TENSIONING OR RE-TENSIONING A TENDON AT ANY TIME PRIOR TO GROUTING.
 - C. THE LOAD FROM THE ANCHORING DEVICE SHALL BE UNIFORMLY DISTRIBUTED TO THE CONCRETE BY MEANS OF APPROVED DEVICES. SUCH APPROVED DEVICES SHALL CONFORM TO THE AASHTO LRFD SPECIAL ANCHORAGE REQUIREMENTS.
 - D. POST-TENSIONING TENDONS SHALL BE OF THE NON-FIXED LENGTH TYPE TO ALLOW FOR POSSIBLE FORM ADJUSTMENTS IN THE EVENT FIELD CONDITIONS GENERATE UNSCHEDULED INCREASE OR DECREASE IN MEMBER LENGTH.

SYSTEM FOR SLABS AND 4-0.6" STRAND ANCHORAGE SYSTEM
FOR BEAMS, U.N.O. MULTI STRAND ANCHORS USING 0.6" STRANDS
MAY ALSO BE USED FOR BEAMS WHERE NEEEDED TO MEET
REQUIRED PT FORCE, ALTERNATE POST-TENSIONING SYSTEMS OR
METHODS MAY BE APPROVED PROVIDED THE FOLLOWING
INFORMATION IS SUBMITTED TO THE ENGINEER AND APPROVED FOR
USE AT LEAST 10 DAYS PRIOR TO BID DATE.

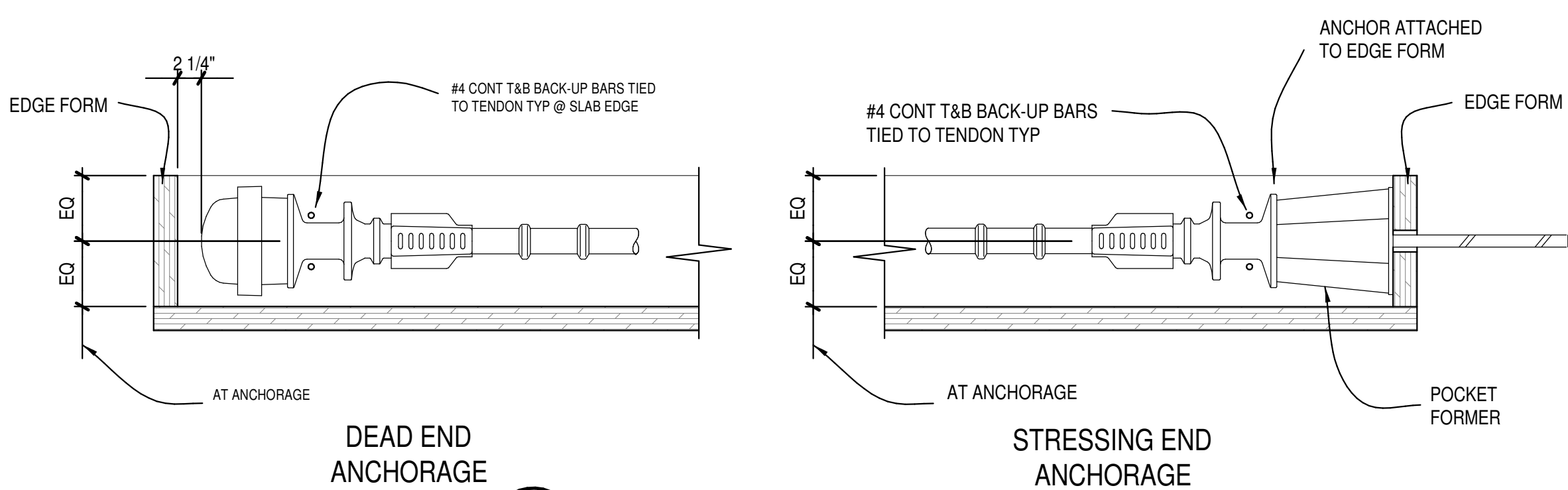
1. COMPLETE DESCRIPTION OF THE POST-TENSIONING SYSTEM AND METHOD PROPOSED FOR USE. SUCH DESCRIPTIONS SHALL INCLUDE TENDON SIZE, BLOCKOUT DIMENSIONS, TENDON LAYOUT AND DESIGN CALCULATIONS AS REQUIRED TO FULLY SUBSTANTIATE ANY DEVIATIONS FROM THE METHOD SHOWN ON THE CONTRACT PLANS.
2. EVIDENCE THAT THE POST-TENSIONING SYSTEM PROPOSED HAS BEEN SUCCESSFULLY USED ON PROJECTS OF SIMILAR MAGNITUDE FOR THE PAST 5 YEARS.



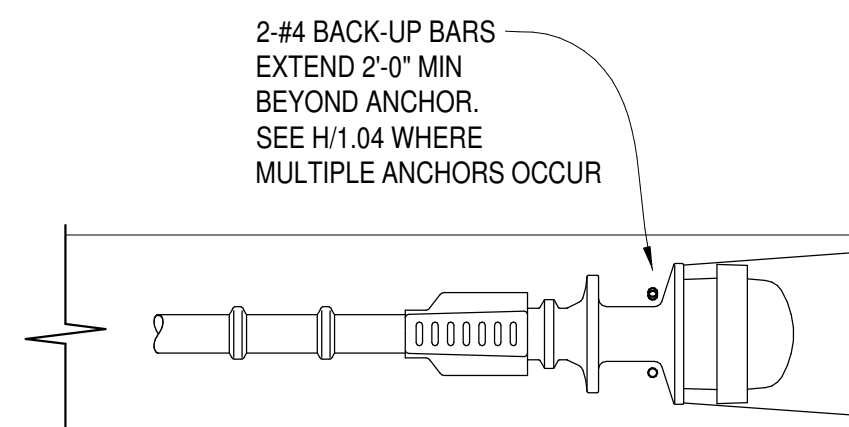
TYP FLARE & REINFORCEMENT
AT SLAB PT ANCHORAGES



INTERMEDIATE 2-STRAND SLAB PT COUPLER ASSEMBLY




F SAMPLE PT ANCHORS
SCALE N.T.S.



- NOTE:
1. PRIOR TO CONCRETE PLACEMENT ANCHORS SHALL BE SECURELY FASTENED TO FORM w/ NON-CORROSIVE SYSTEM
 2. WITHIN 5 DAYS AFTER STRESSING, BURN TENDON TAILS OFF MIN 3/4" FROM BEARING PLATE AND ATTACHE GROUT CAP.
 3. SEE SPECS FOR GROUTING PROCEDURE.

(G) TYPICAL TENDON PROTECTION AT ANCHORS

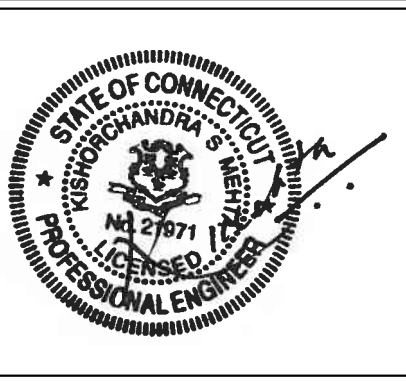
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.



ARCHITECT: WENDEL

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

DESIGNED BY:
RESTL DESIGNERS, INC.
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:

WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:

TYPICAL DETAILS

PROJECT NO.

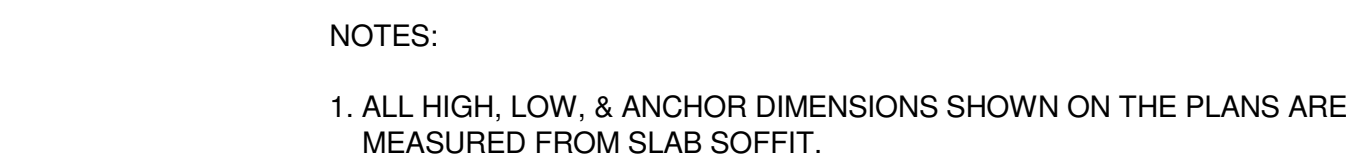
0431-0006

DRAWING NO.

S-309

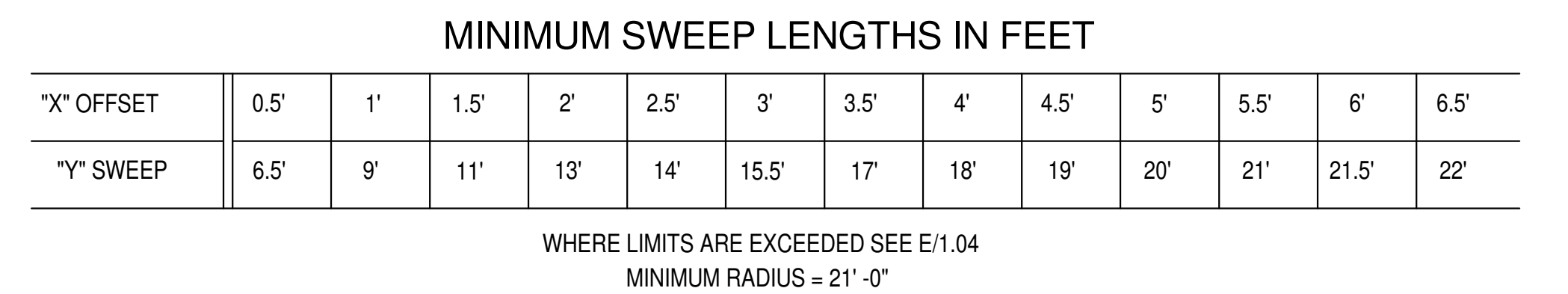
SHEET NO.

09.037



- NOTES:
1. L_n = LARGER OF THE ADJACENT CLEAR SPANS
 2. INSTALL TENDONS WITH PARABOLIC DRAPE BETWEEN INDICATED HIGH AND LOW POINTS.
 3. PROVIDE SUPPORT CHAIRS, SLAB BOLSTER AND REINF BARS AS NECESSARY TO MAINTAIN THE PARABOLIC DRAPE OF THE TENDON.
 4. SEE CONCRETE NOTES FOR COVER DIMENSIONS.
 5. FULL LENGTH TOP BARS MAY BE SPLICED WITH A CLASS 'B' TENSION LAP AT MIDSPAN.

B POST-TENSIONED SLAB
REINFORCEMENT PLACING DETAIL
SCALE: N.T.S.



C TYP TENDON SWEEPS AND BENDS
SCALE: N.T.S.



THE INFORMATION, INCLUDING
ESTIMATED QUANTITIES OF
WORK, SHOWN ON THESE
SHEETS IS BASED ON LIMITED
INVESTIGATIONS BY THE STATE
AND IS IN NO WAY WARRANTED
TO INDICATE THE CONDITIONS OF
ACTUAL QUANTITIES OF WORK
WHICH WILL BE REQUIRED.

3/4" = 1'-0"



1133

DATE _____

WENDEL	
DATE:	RECEIVED

**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

TYPICAL DETAILS



0431-0006

S-310

09.038



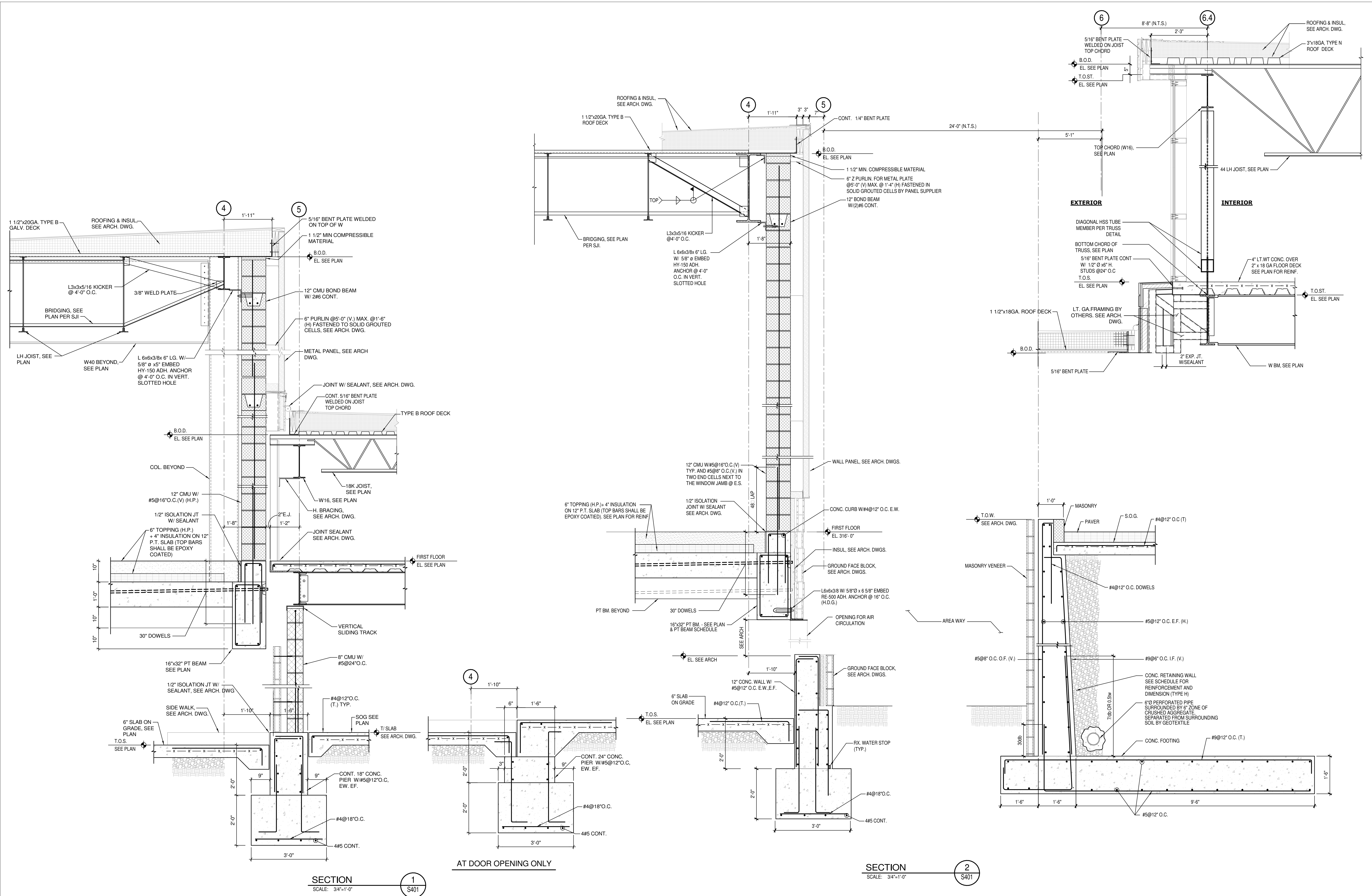
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

	<h1 style="margin: 0;">STATE OF CONNECTICUT</h1> <h2 style="margin: 0;">DEPARTMENT OF TRANSPORTATION</h2>	
ARCHITECT: WENDEL	ENGINEERS: RASTL, DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL	
APPROVED BY: KM	DATE: 6/11/2014	

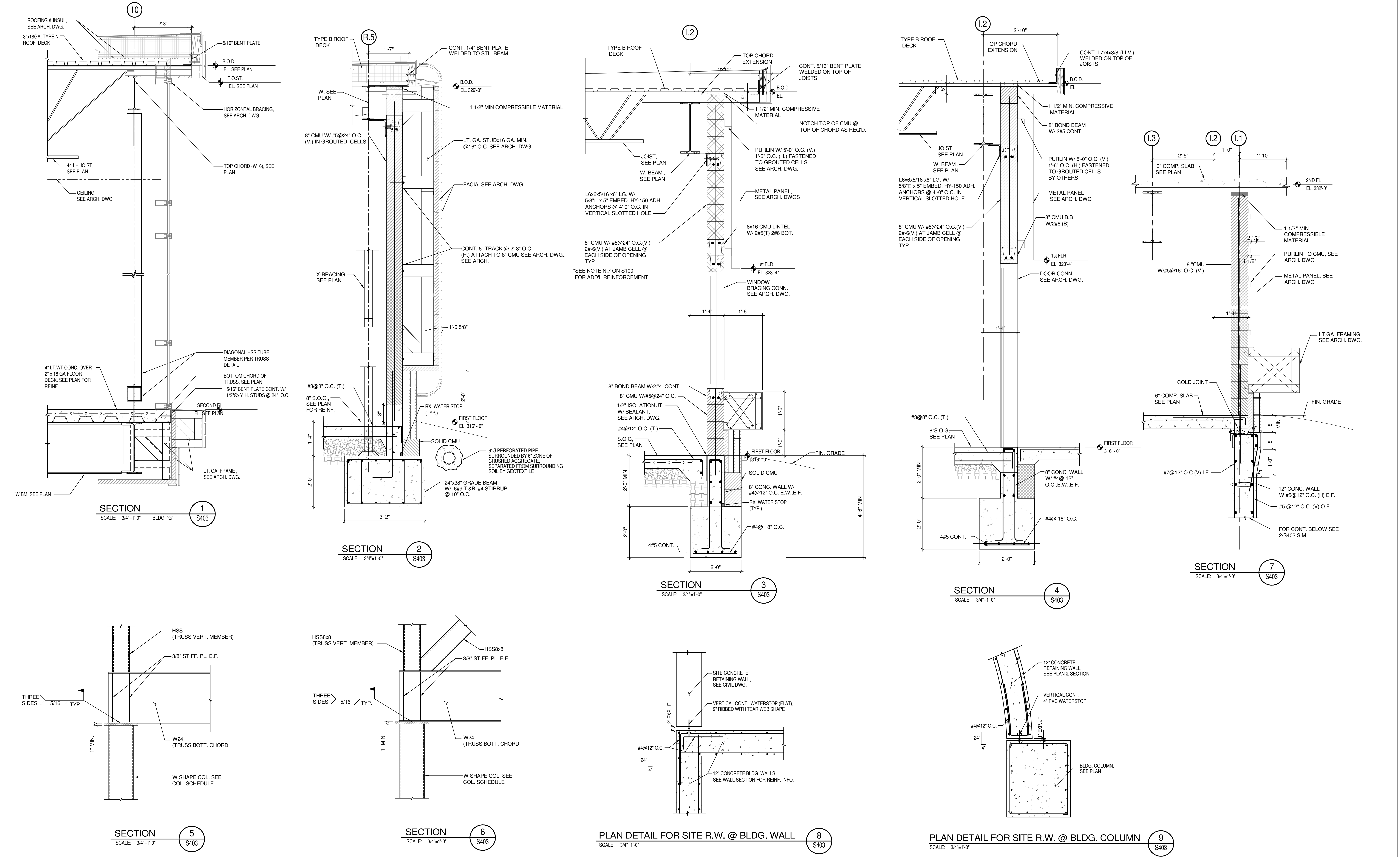
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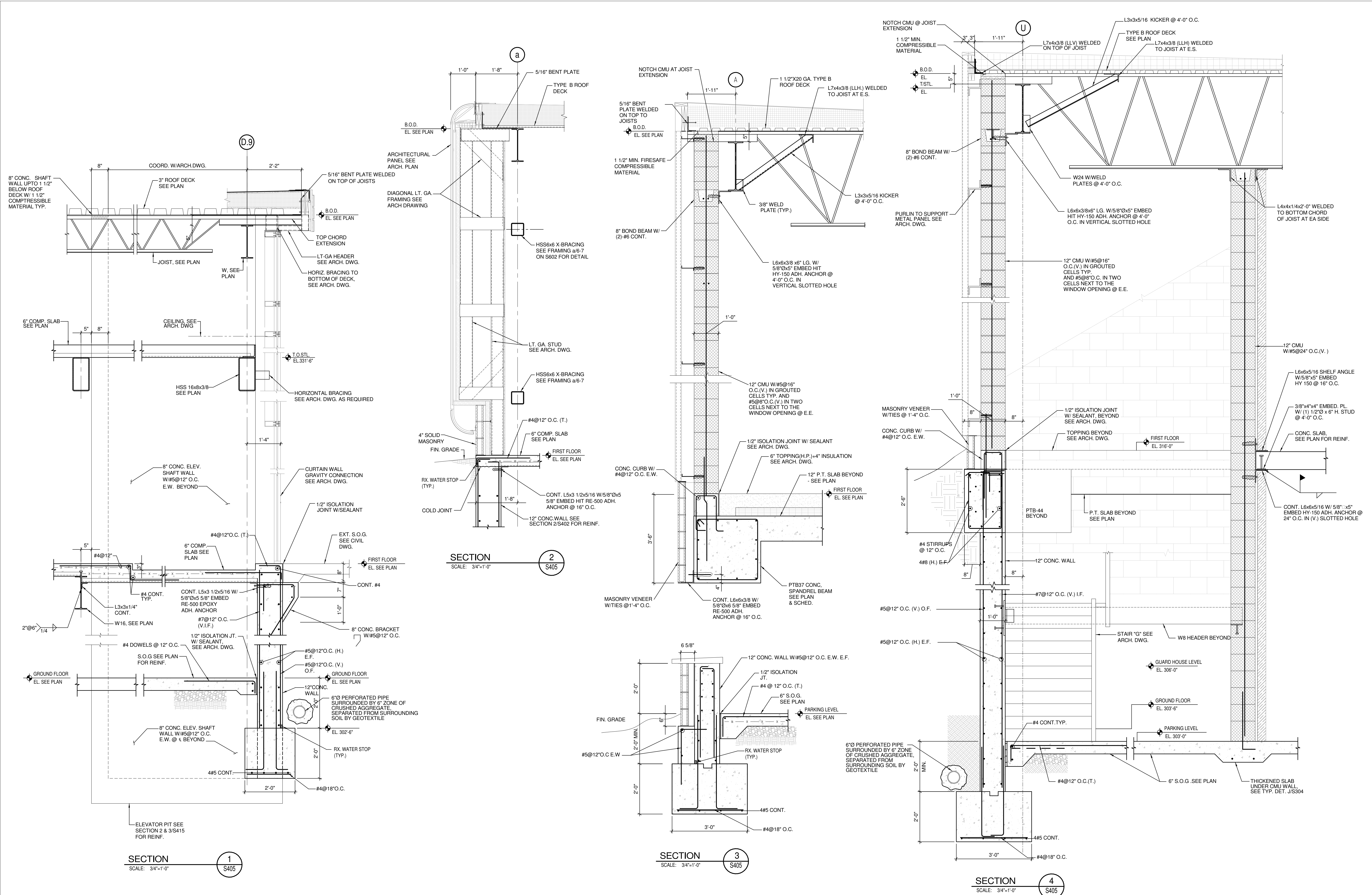
**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

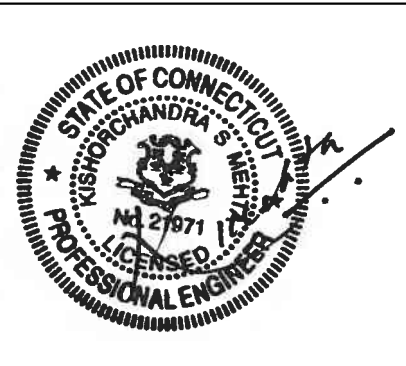
ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO. 0431-0006
DRAWING TITLE:	TYPICAL DETAILS	DRAWING NO. S-311
		SHEET NO. 09.039

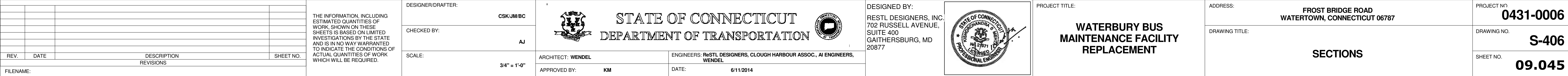


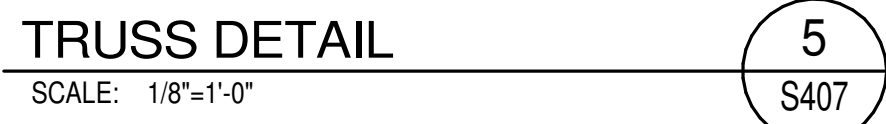
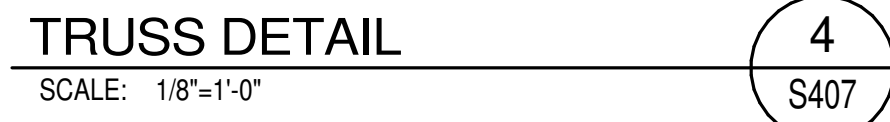
ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO. 0431-0006
DRAWING TITLE:	SECTIONS	DRAWING NO. S-402
		SHEET NO. 09.041






				DESIGNED BY: RESTL DESIGNERS, INC. 702 RUSSELL AVENUE, SUITE 400 GAITHERSBURG, MD 20877			PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO: 0431-0006	
THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.				DESIGNER/DRAFTER: CSK/JM/BC AJ			CHECKED BY:		DRAWING TITLE: SECTIONS		DRAWING NO. S-405	
SCALE: 3/4" = 1'-0"				ARCHITECT: WENDEL		ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL		SHEET NO. 09.044				
APPROVED BY: KM				DATE: 6/11/2014								
REV. DATE DESCRIPTION SHEET NO.												
REVISIONS												
FILENAME:												





NOTE: CONTRACTOR HAS THE OPTION OF SUGGESTING/SUBMITTING
ANOTHER SPLICE DETAIL FOR A/E REVIEW & APPROVAL.

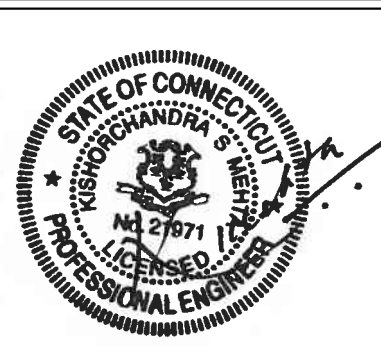
THE INFORMATION, INCLUDING
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WORK, SHOWN ON THESE
SHEETS IS BASED ON LIMITED
INVESTIGATIONS BY THE STATE
AND IS IN NO WAY WARRANTED
TO INDICATE THE CONDITIONS OF
ACTUAL QUANTITIES OF WORK
WHICH WILL BE REQUIRED.



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



DESIGNED BY:
RESTL DESIGNERS, INC.
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:

WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:

SECTIONS

PROJECT NO.

0431-0006

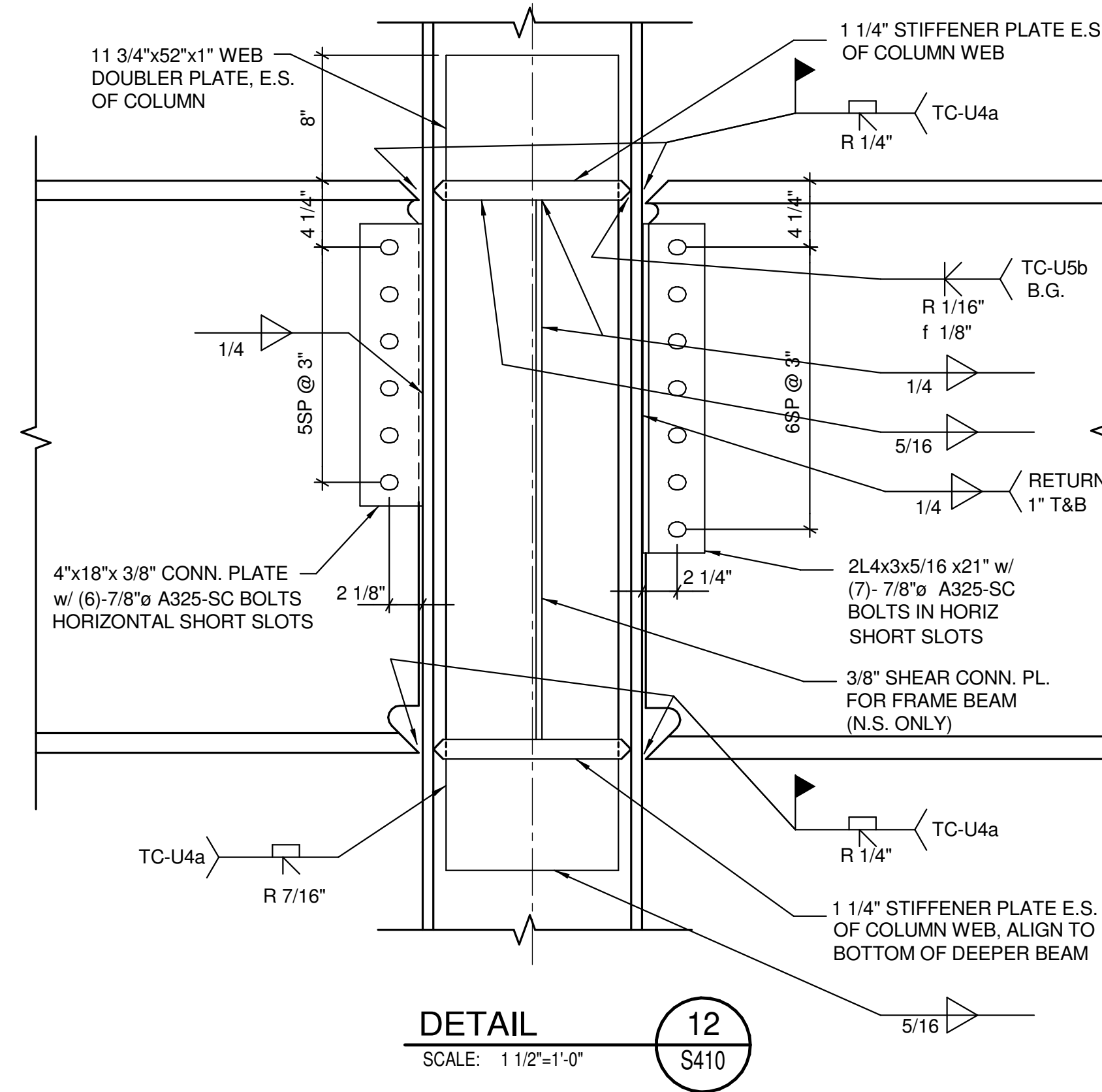
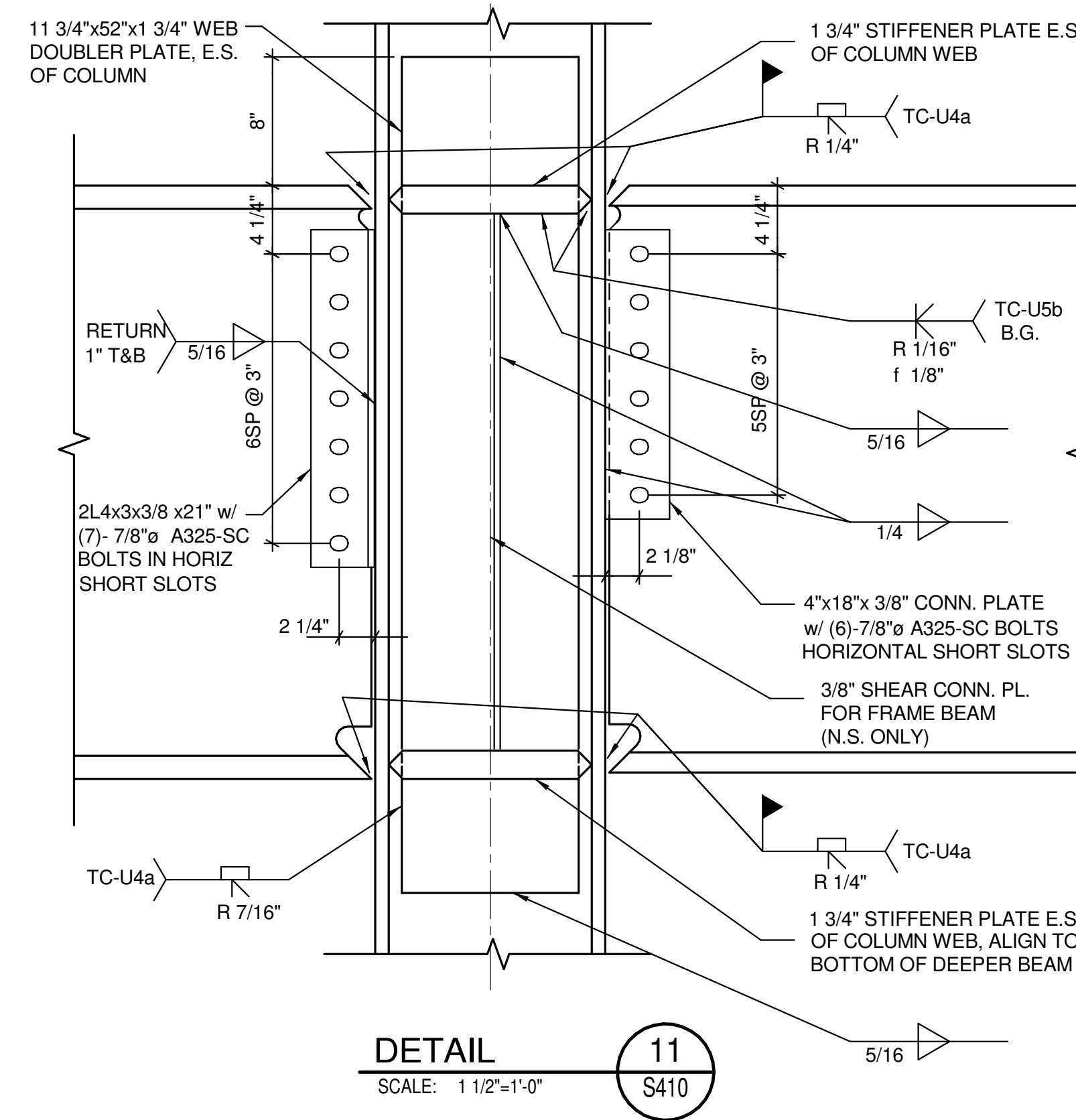
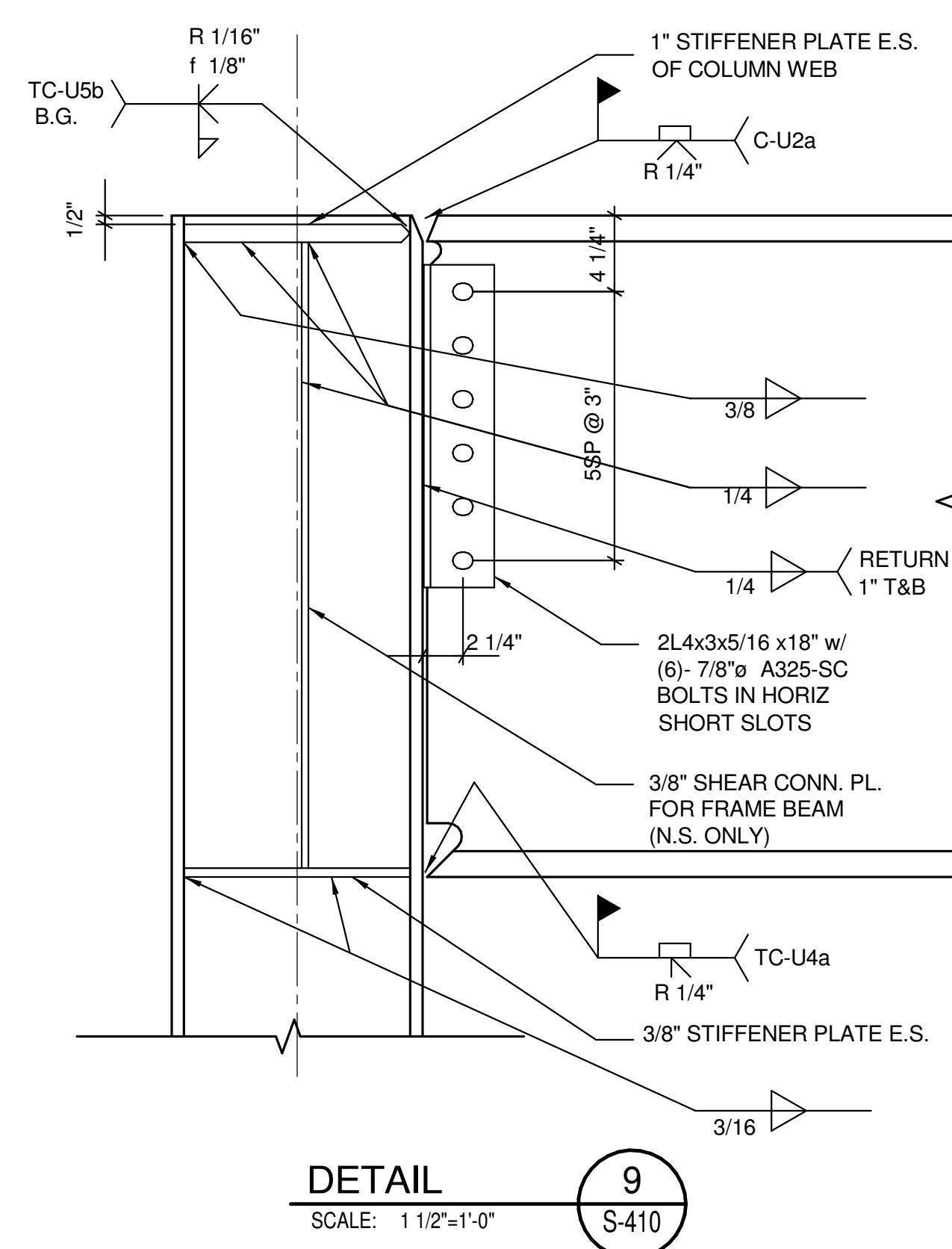
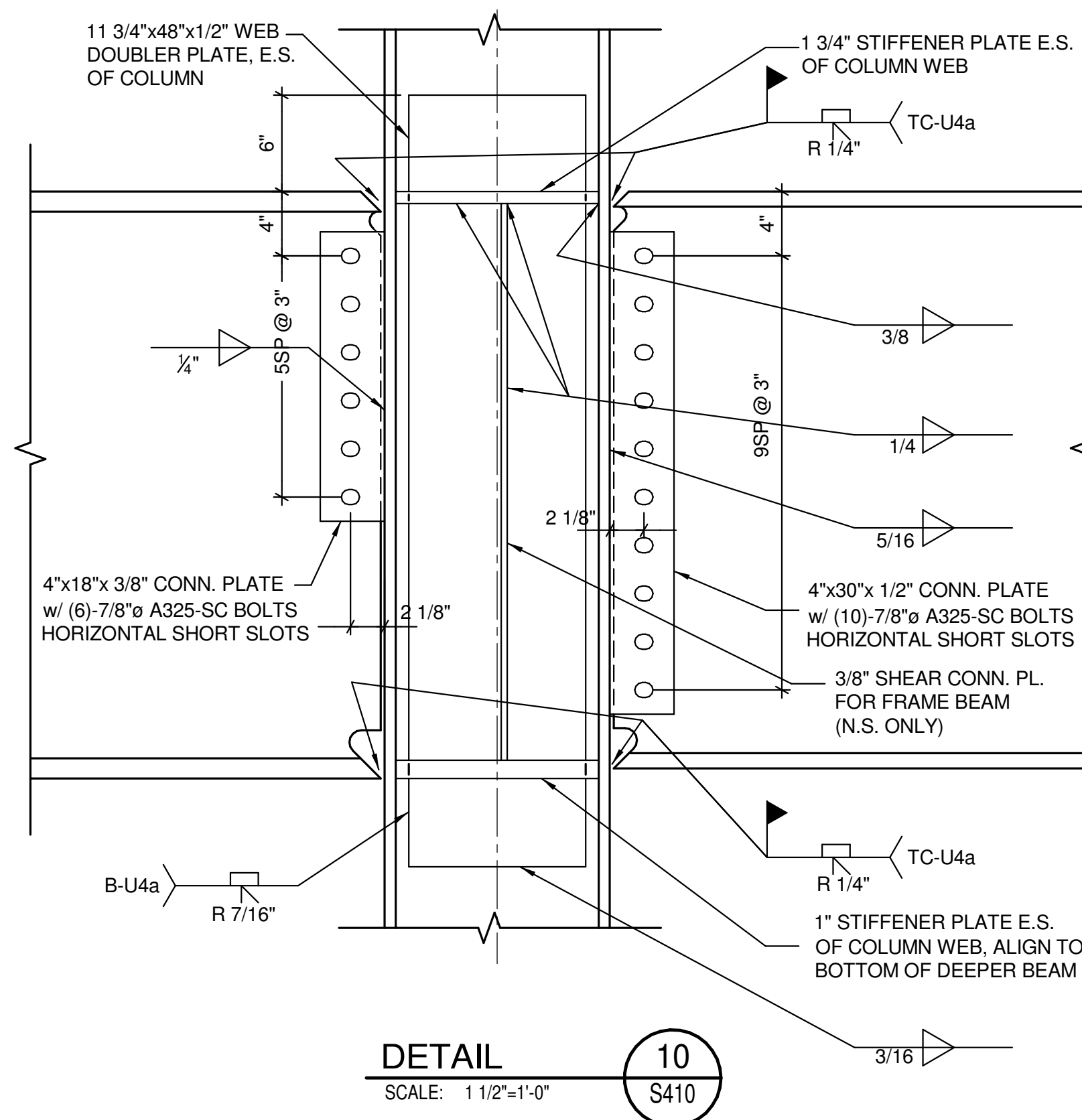
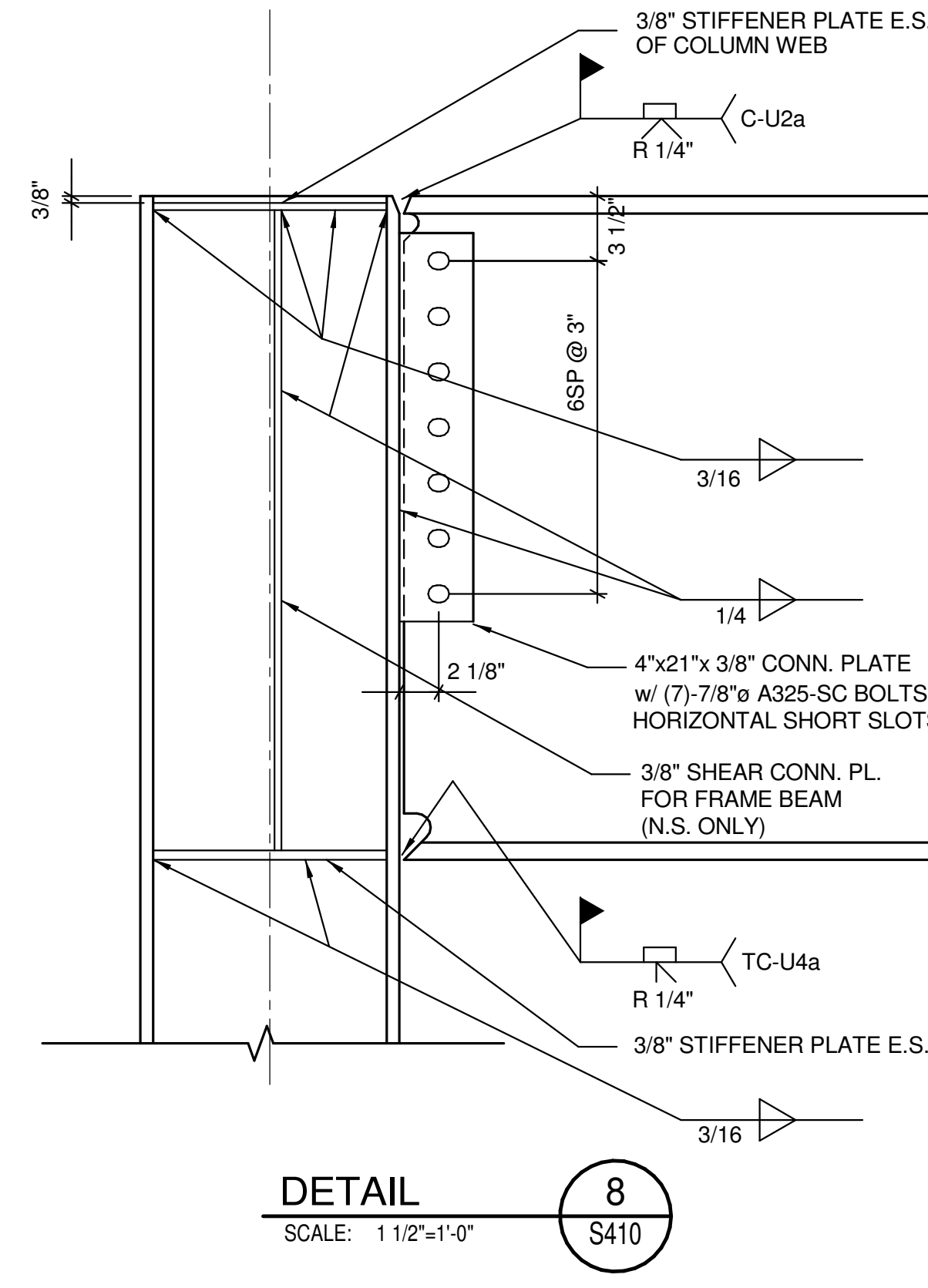
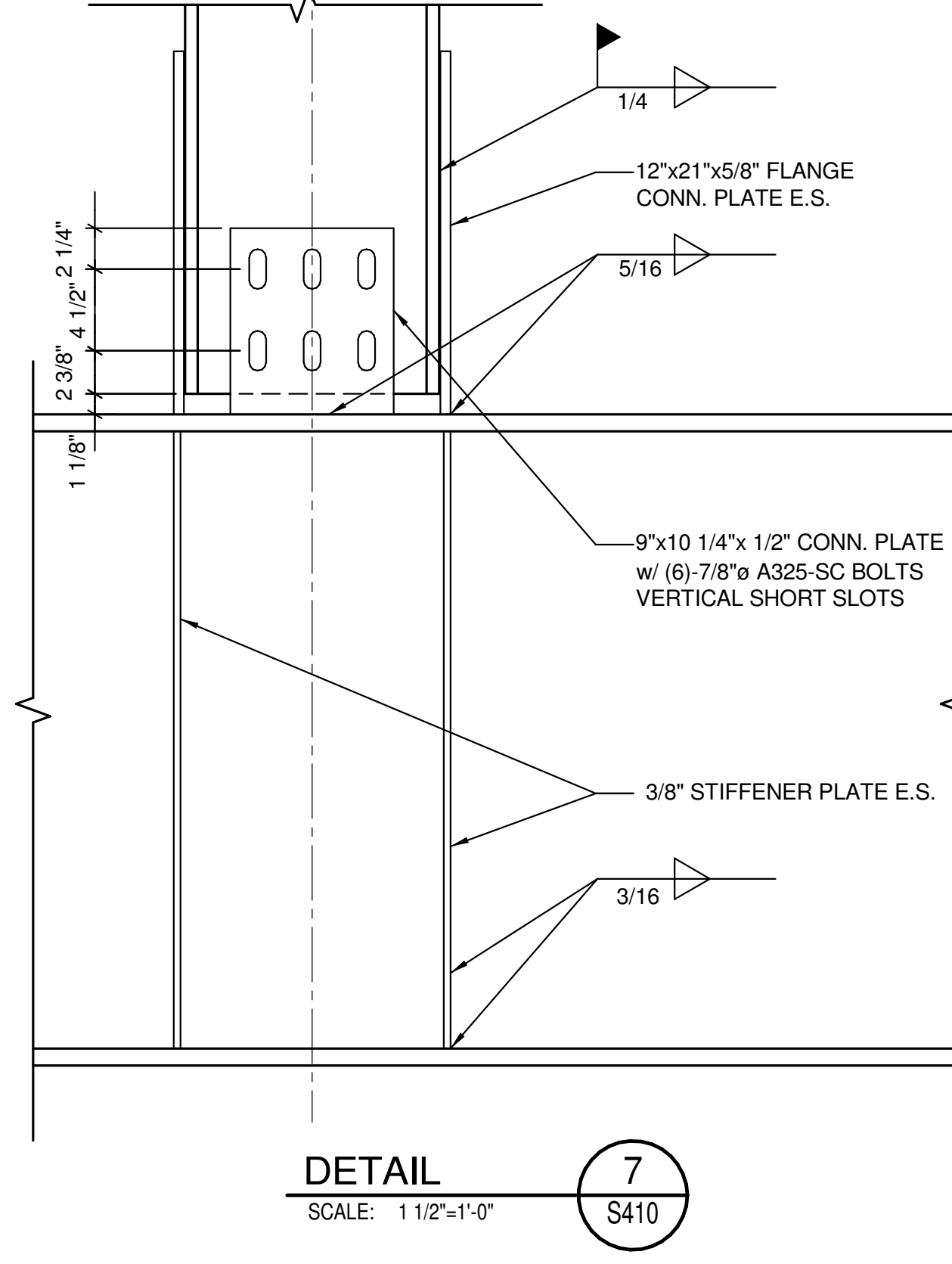
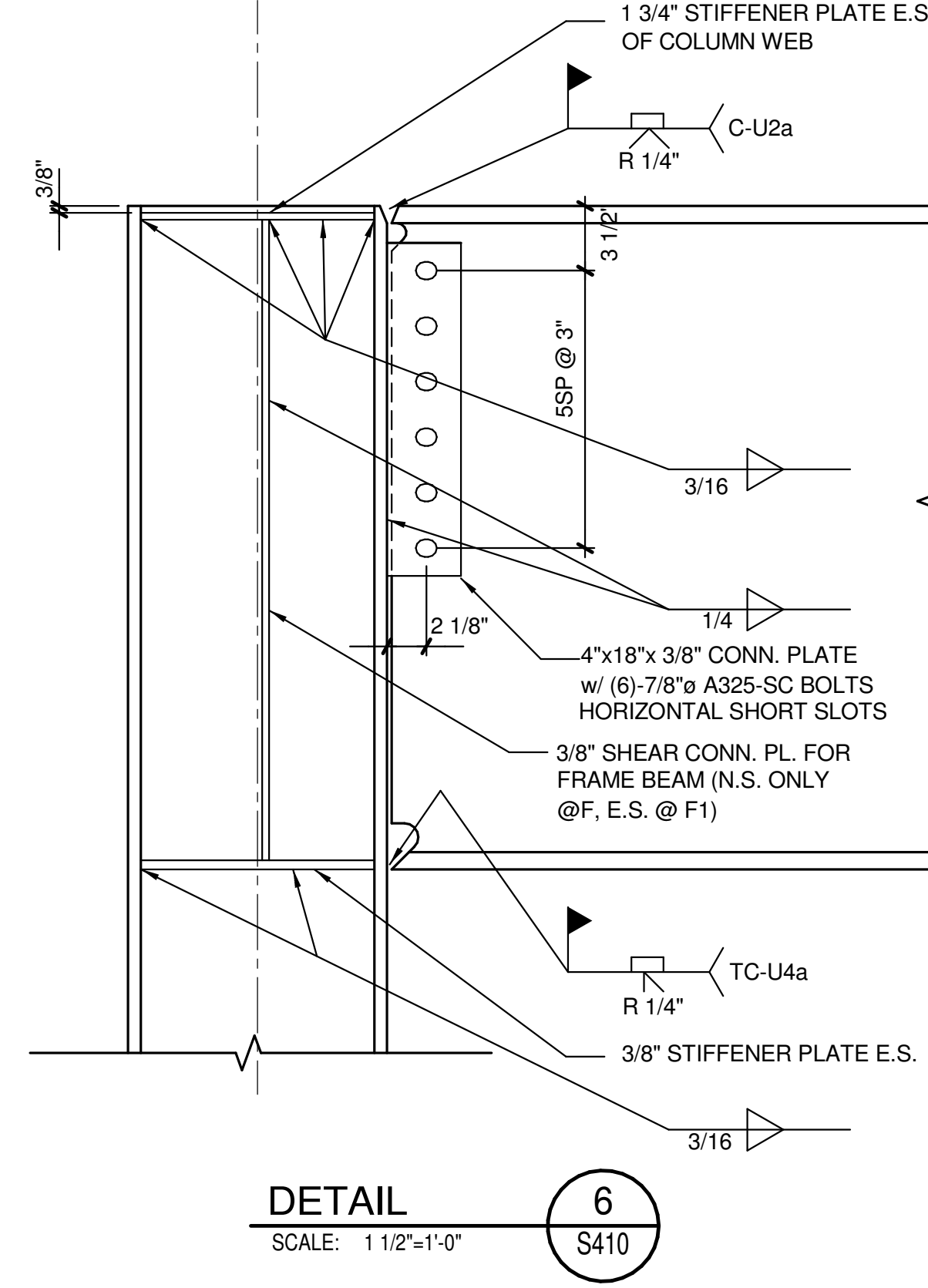
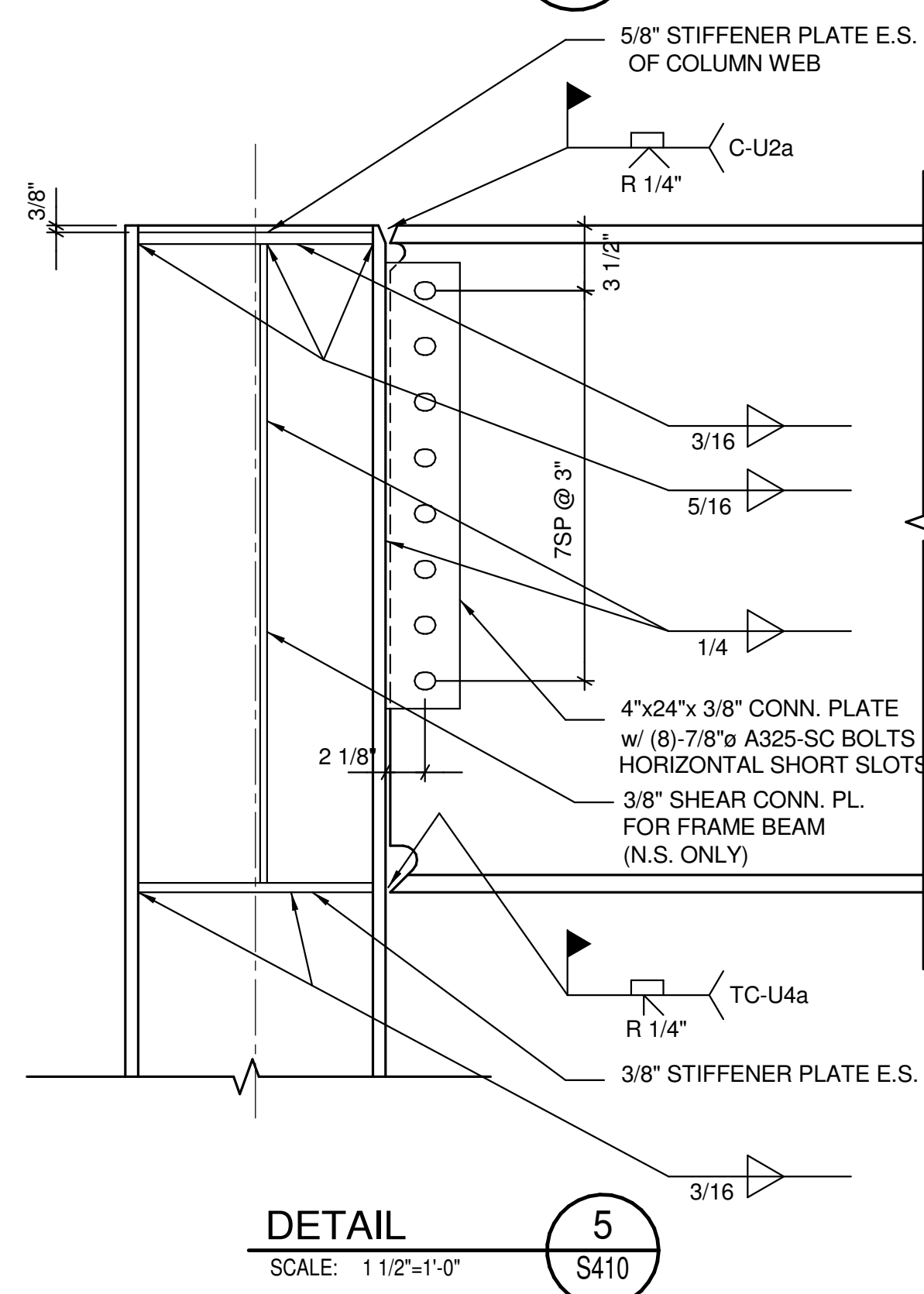
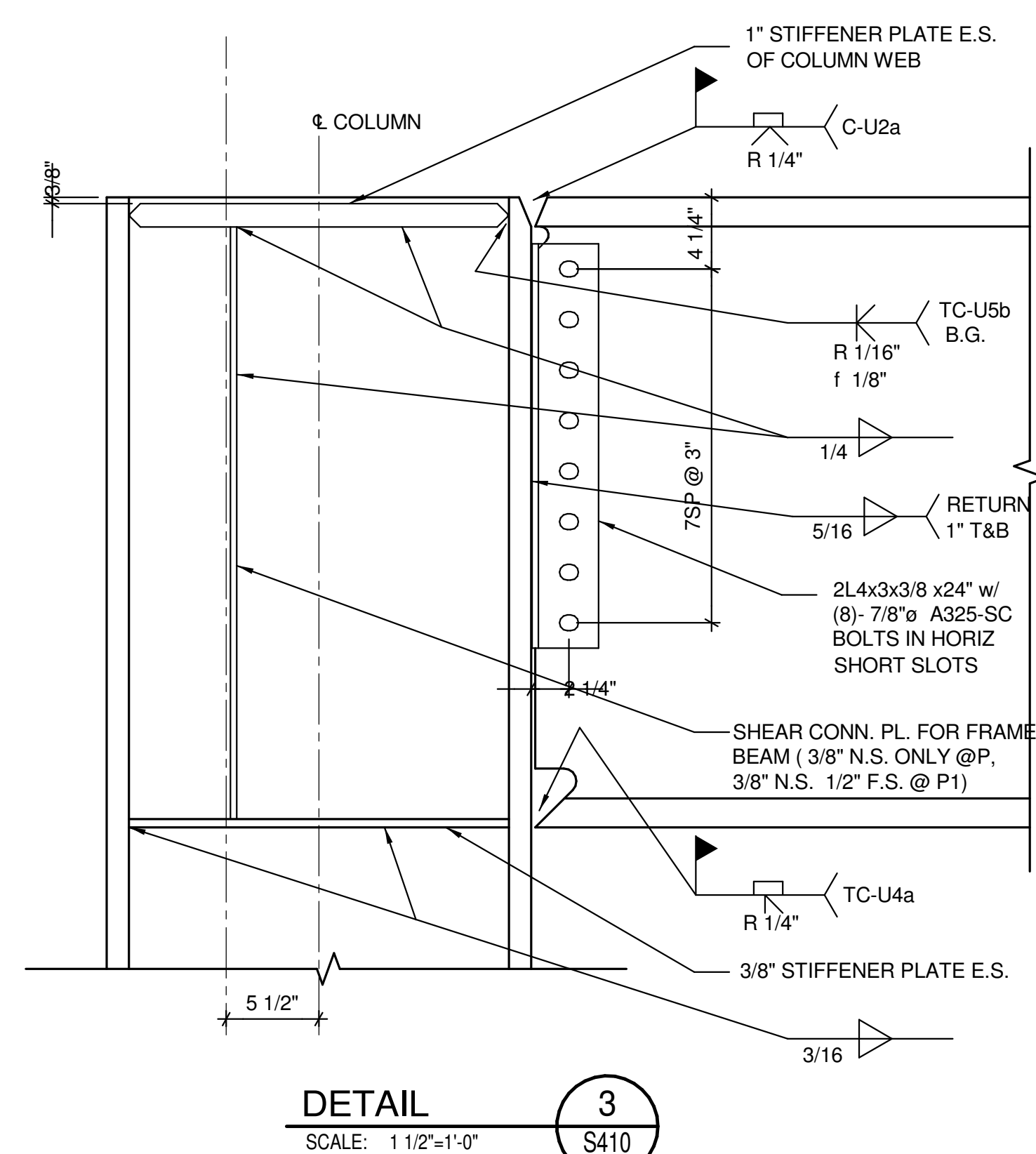
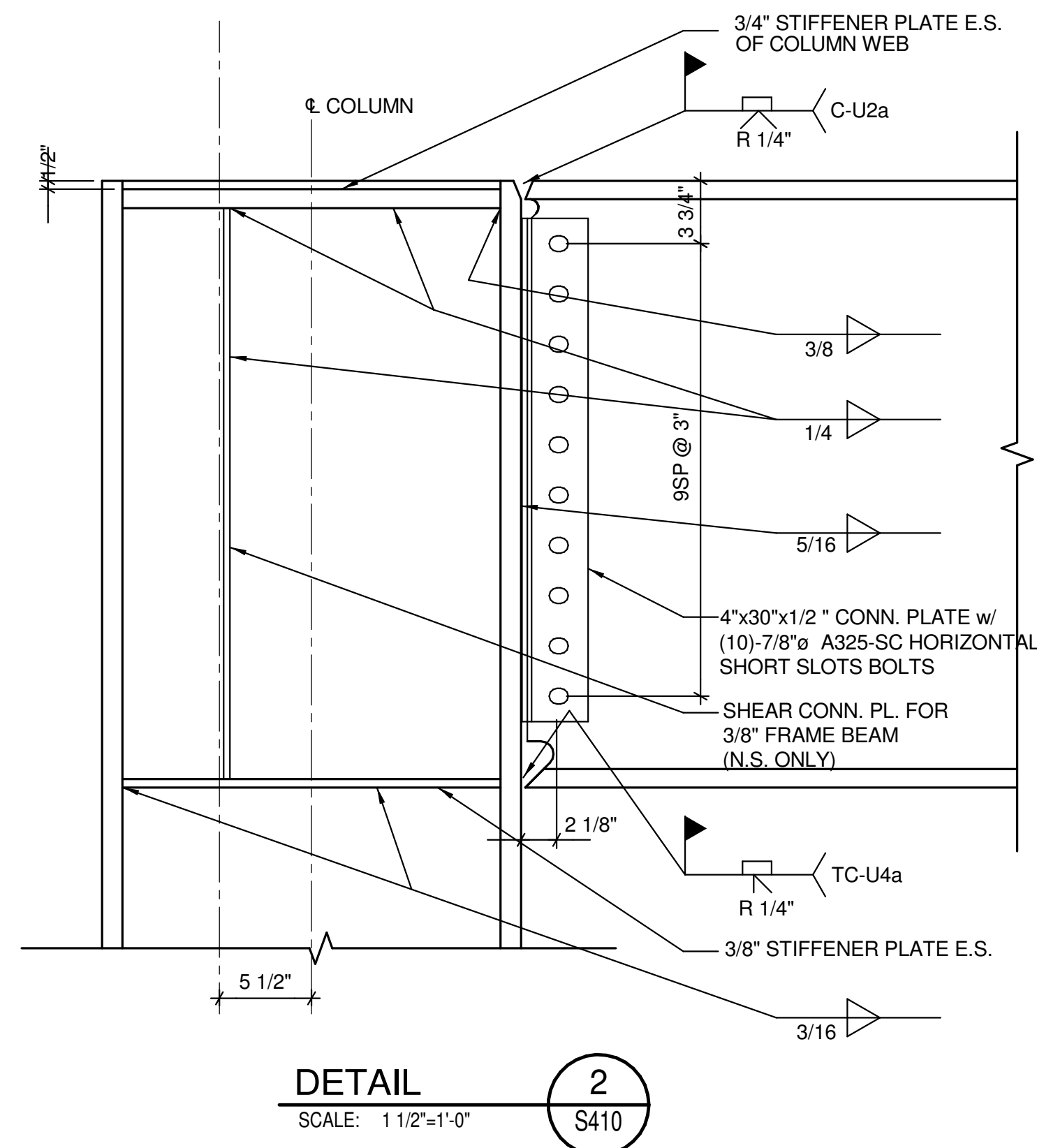
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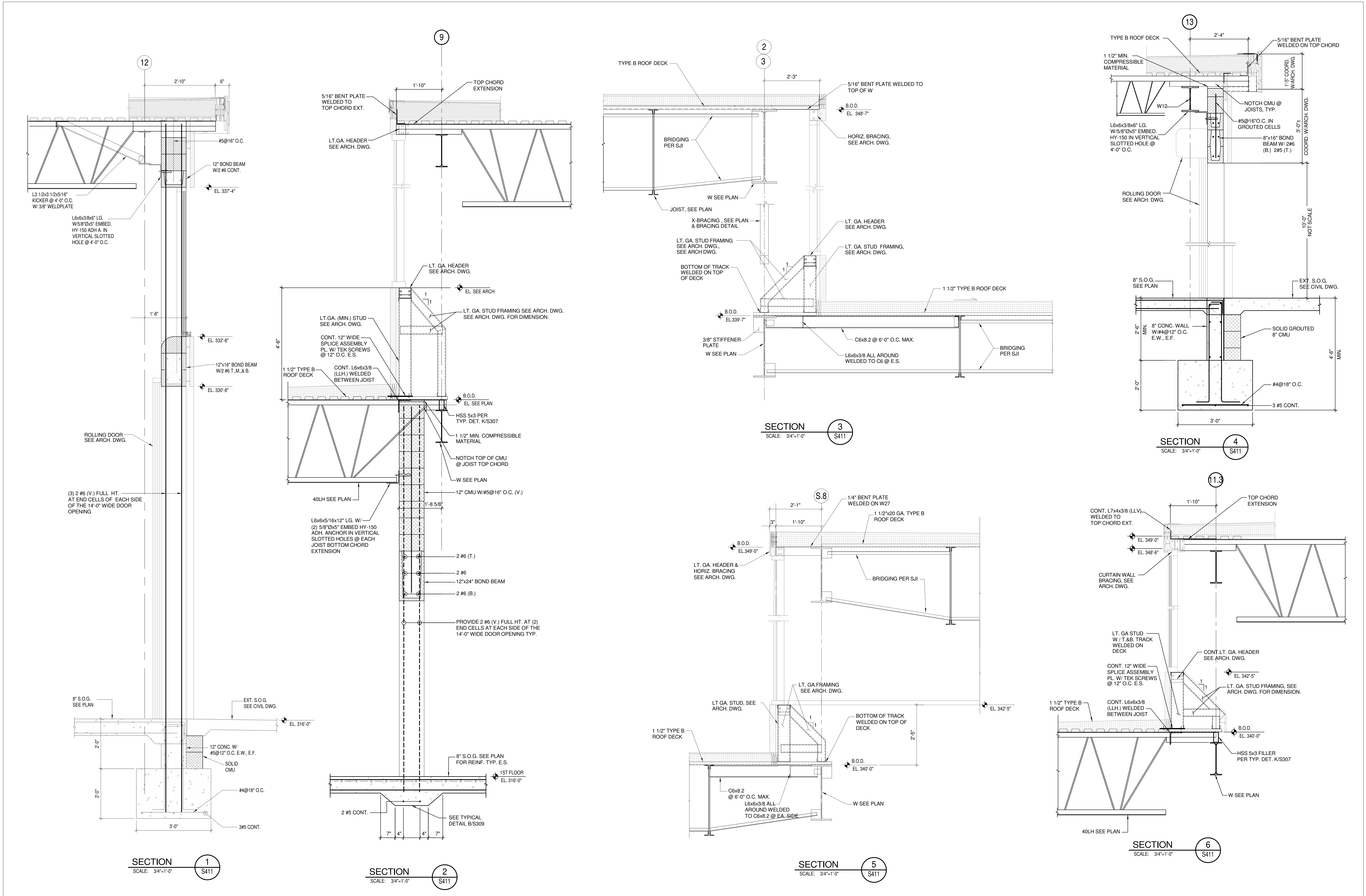
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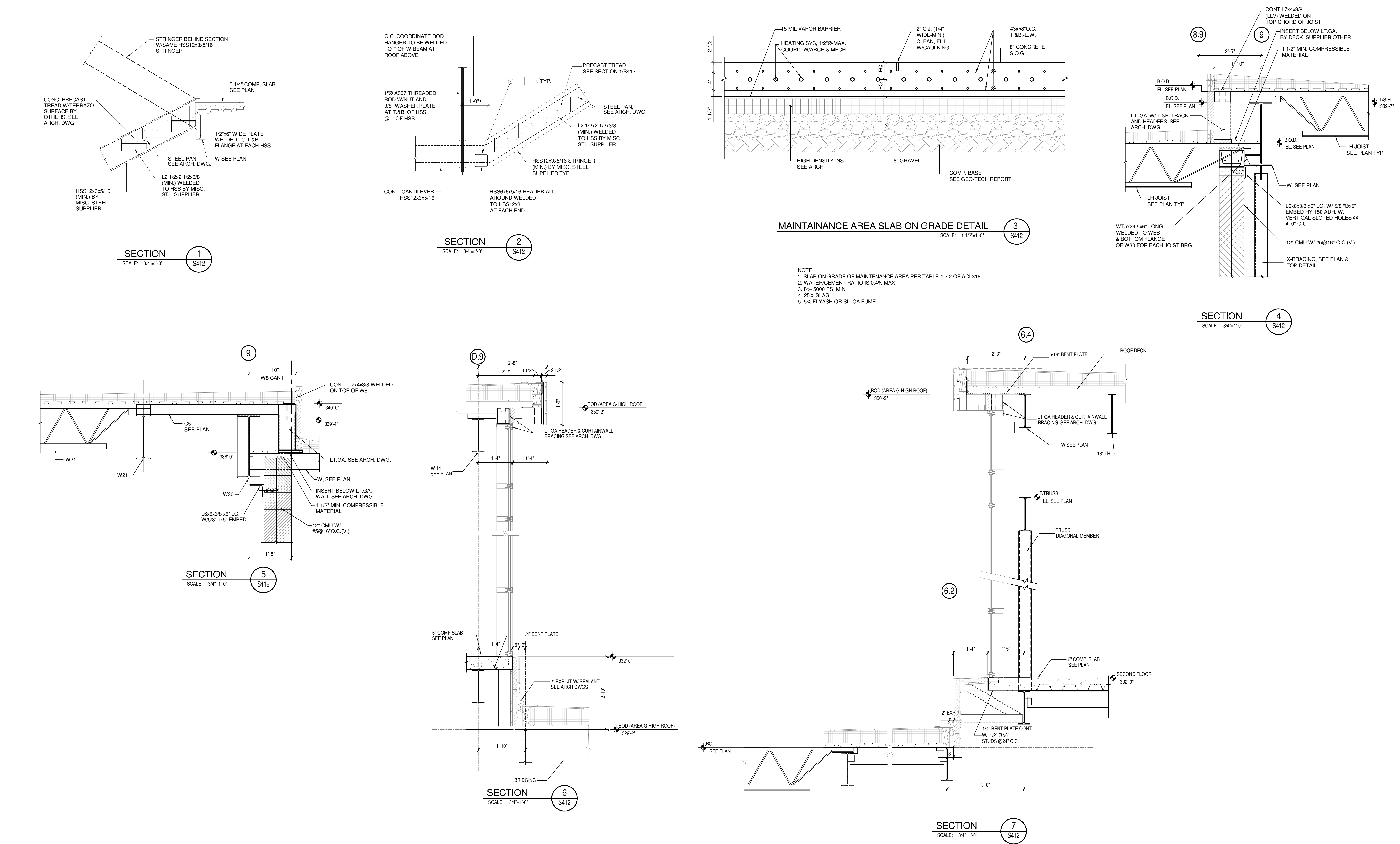
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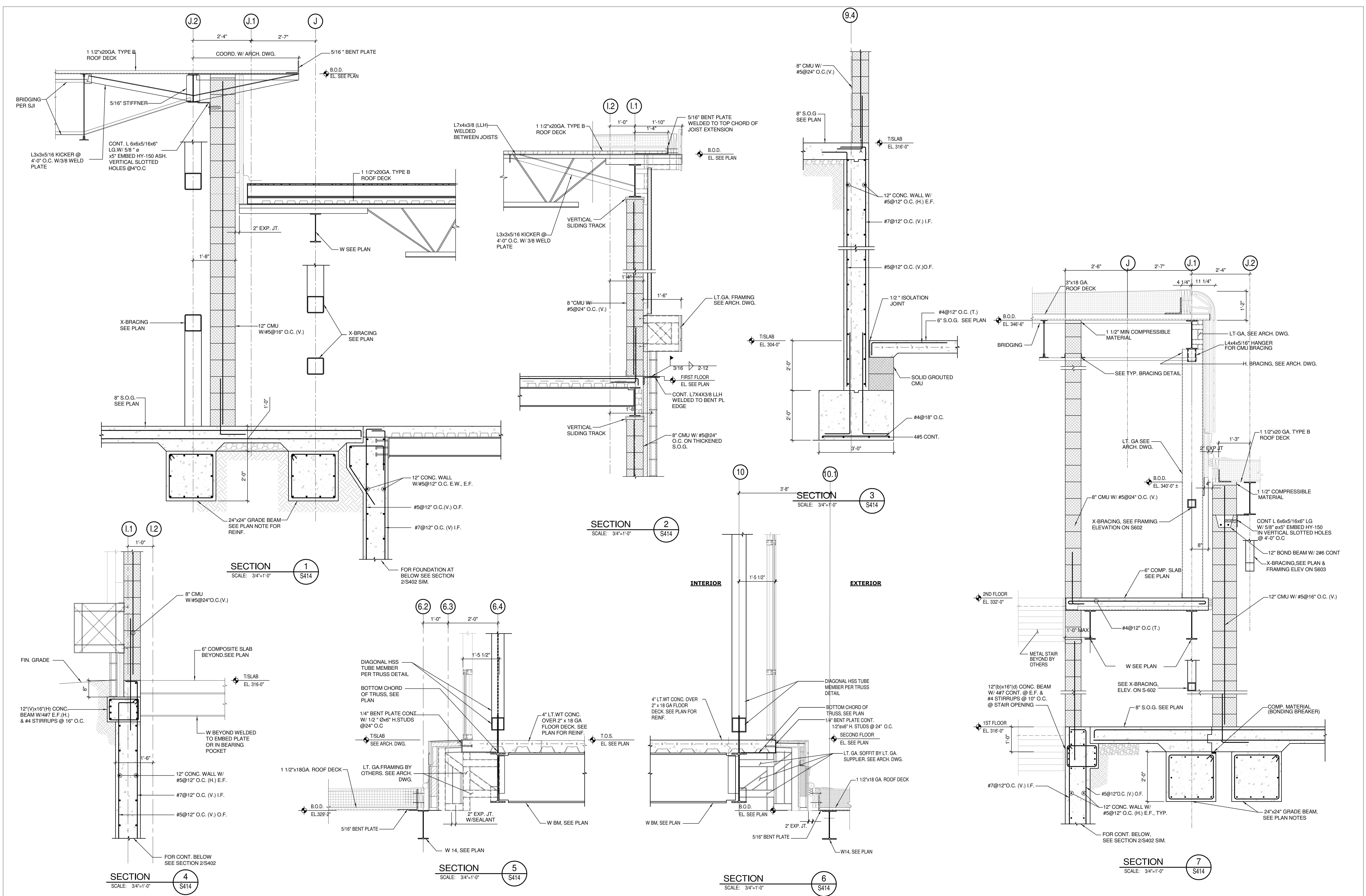


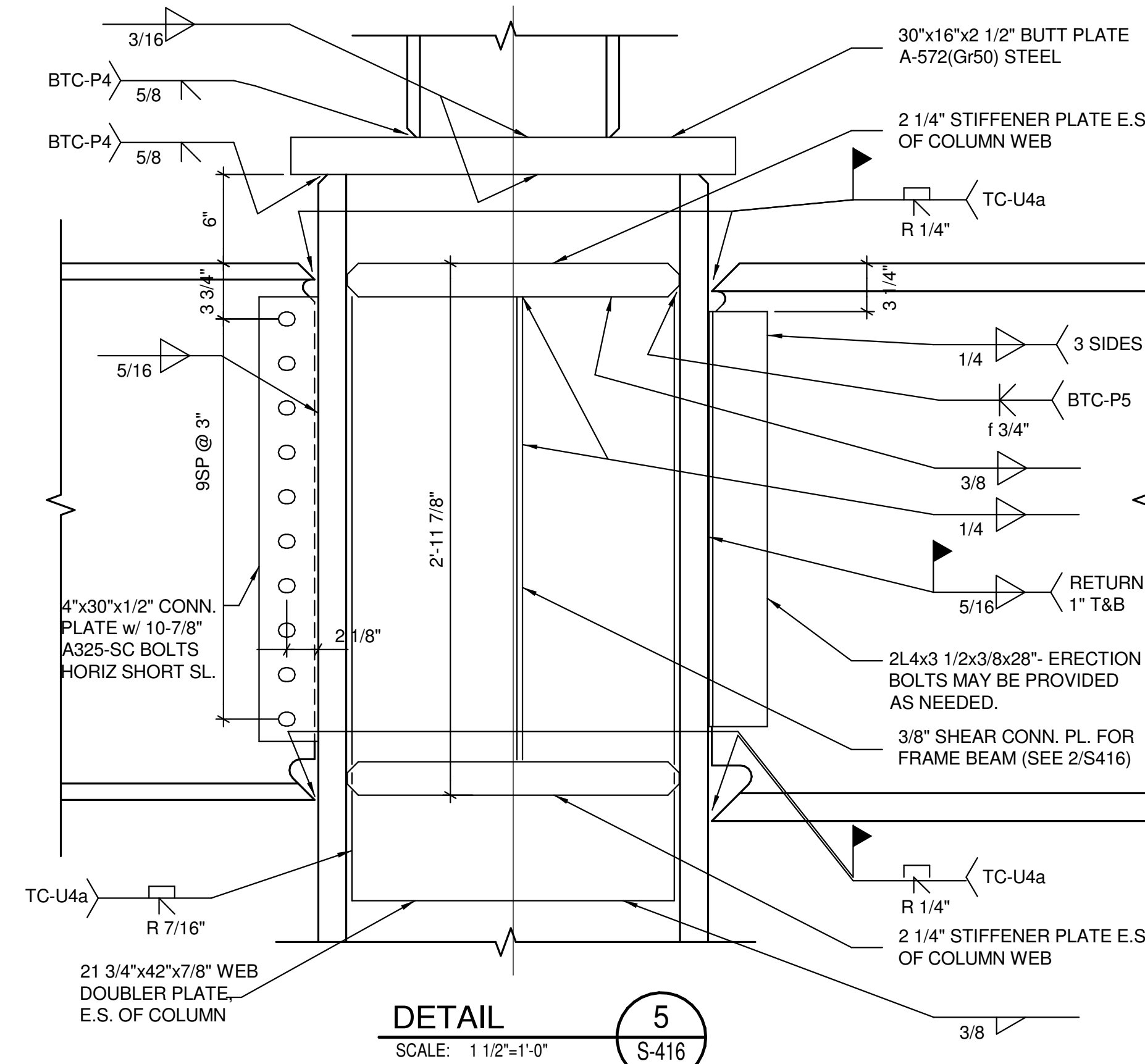
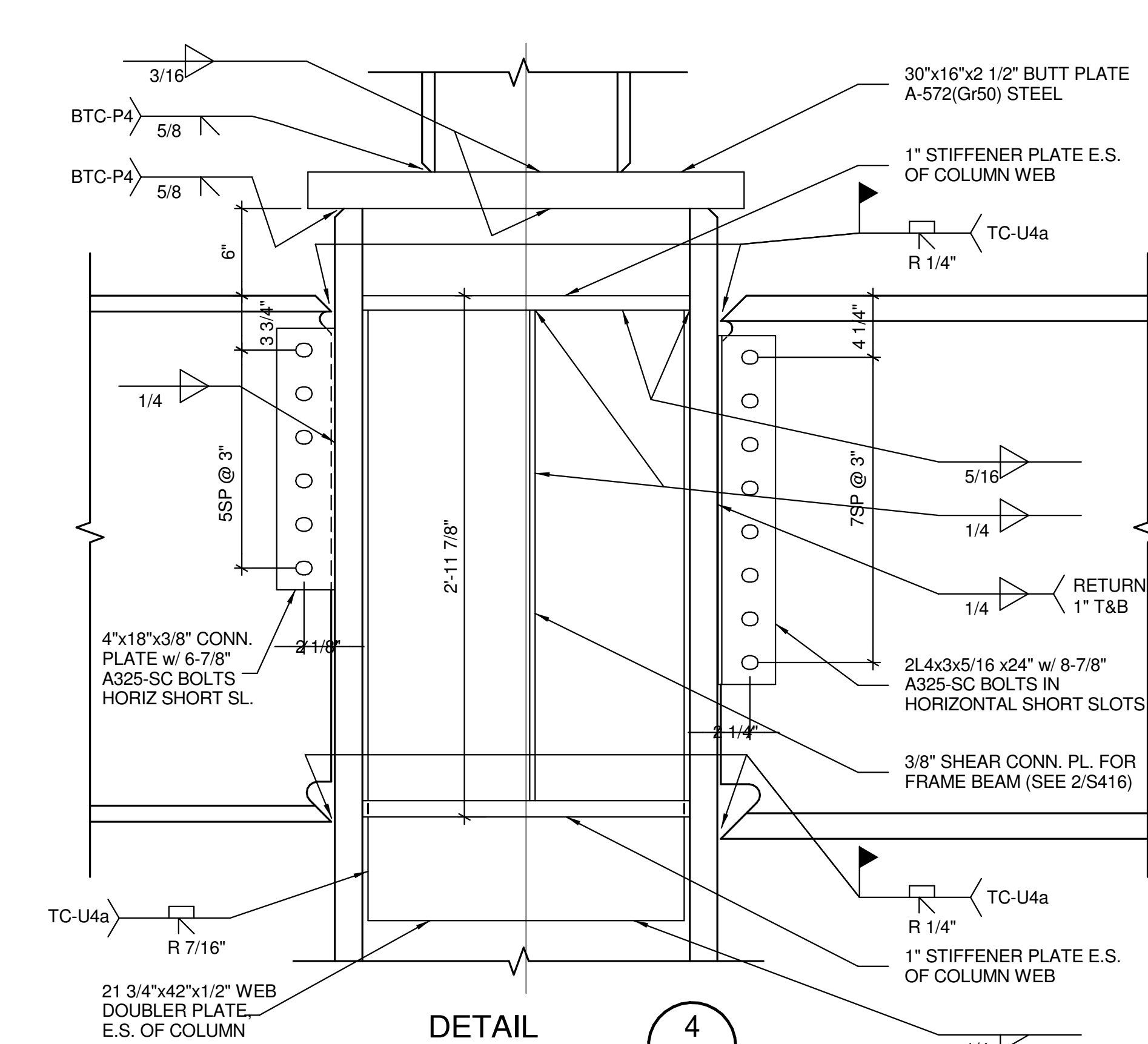
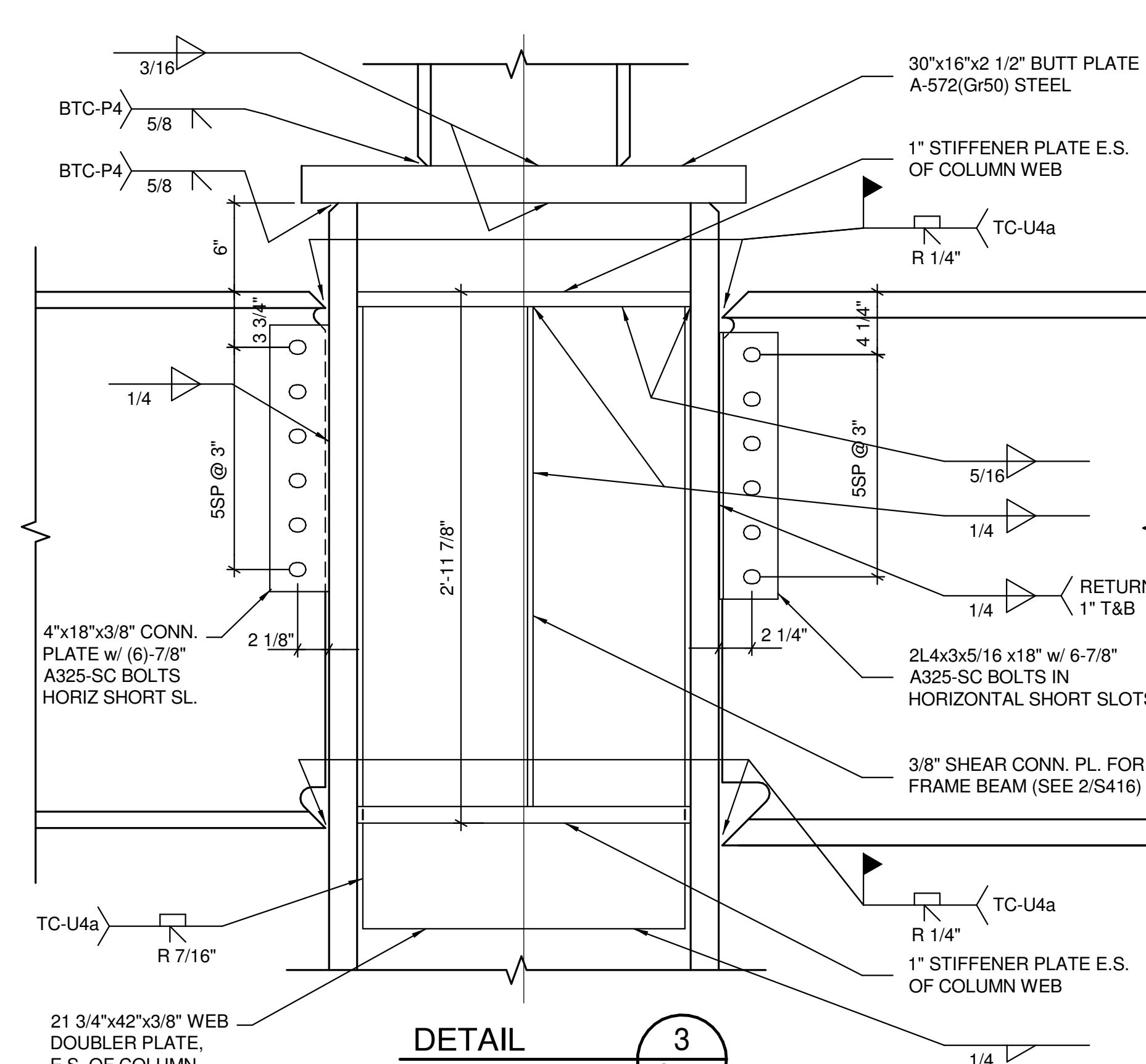
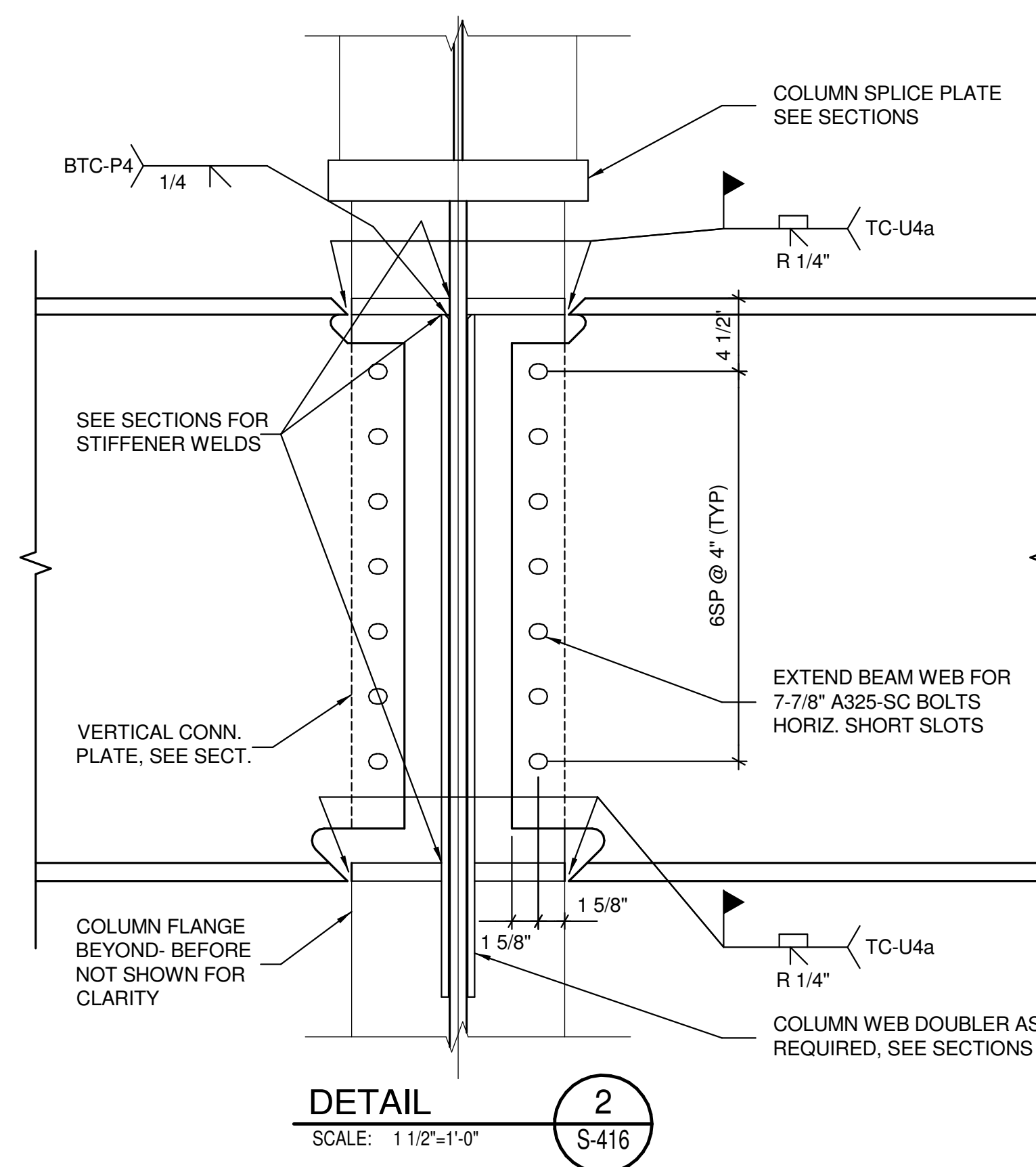
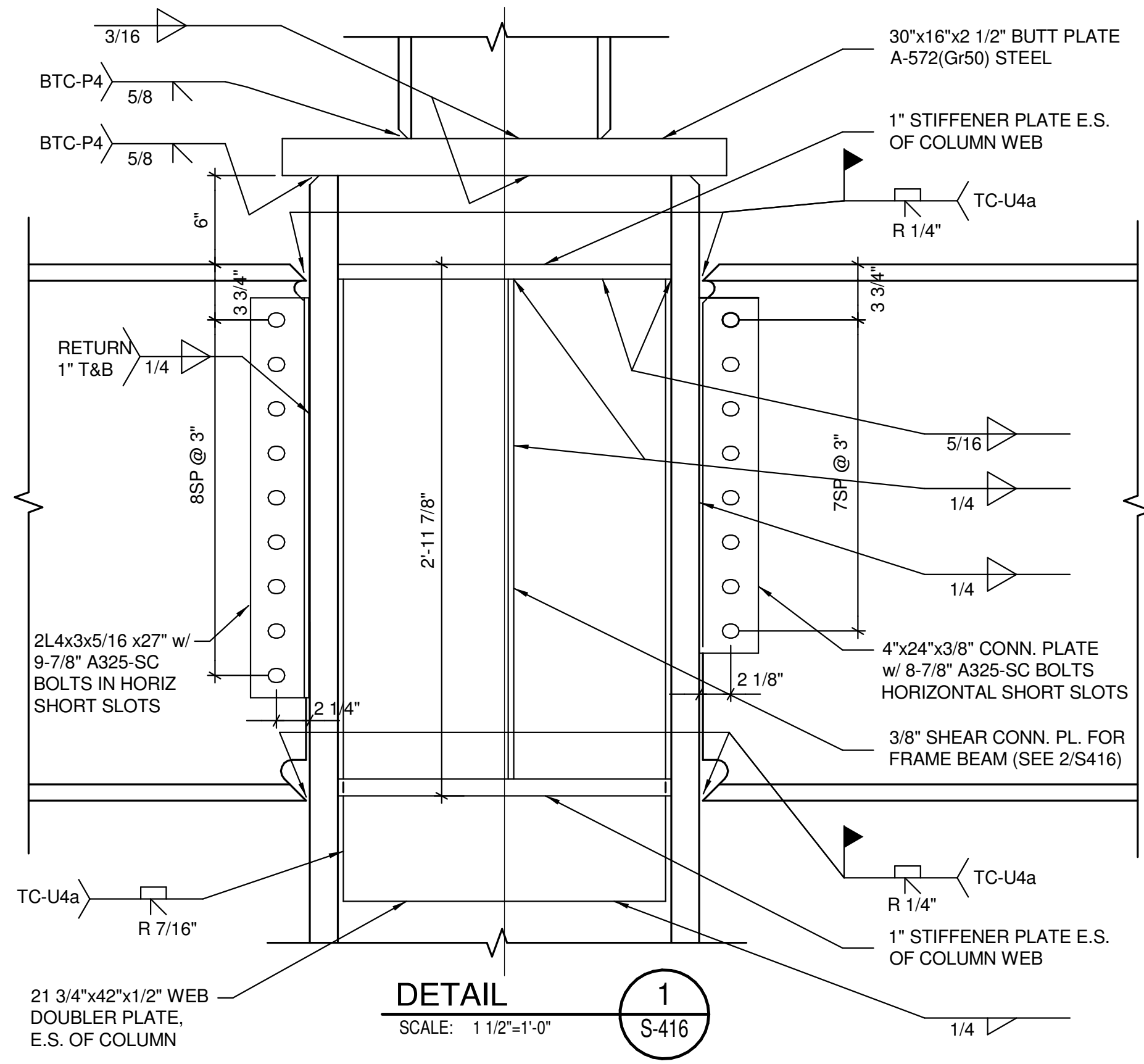
ADDRESS:	FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO. 0431-0006
DRAWING TITLE:	SECTIONS	DRAWING NO. S-410
		SHEET NO. 09.049





				DESIGNER/DRAFTER:		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	DESIGNED BY:		<div>STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION</div>	PROJECT TITLE: WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO: 0431-0006						
				CHECKED BY:															
				SCALE:			ARCHITECT: WENDEL												
							ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL												
REV. DATE DESCRIPTION SHEET NO.				APPROVED BY: KM			DATE: 6/11/2014				DRAWING TITLE: SECTIONS								
FILENAME:																			





COLUMN SCHEDULE - AREA A,B,C																																		
MARK		A-1	B-1	C-1	D-1	E-1	F-1	G-1	H-1	H.1-1	I-1	J-1	K-1	L-1	M-1	N-1	N.1-1	P-1	Q-1	R-1	S-1	S.5-1	S.7-1	T-1	U-1	A-1.3	B-1.3	C-1.3	D-1.3	MARK				
HIGH ROOF																															HIGH ROOF			
MAIN ROOF																															MAIN ROOF			
FIRST FLOOR		W14x61 25	W14x61 135	W14x61 130	W14x90 225	W14x61 20	W14x90 185	W14x61 20	W14x68 100	W24x75 100	W14x90 20	W24x29 200	W14x99 35	W24x50 220	W14x90 20	W24x192 145	W14x68 100	W14x61 135	W14x82 170	W14x61 130	W14x90 200					W14x74 40	W14x61 215					FIRST FLOOR		
LOWER LEVEL		30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 18#10	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9	30"x36" 10#9		LOWER LEVEL		
COLUMN LOAD		185	260	280	380	180	350	185	215	175	200	215	125	235	105	185	145	240	280	335	320	165	135	120	50	310	380	345	325	COLUMN LOAD				
BASE PLATE	BASE PLATE	20"x20"x3/4"	20"x20"x1 3/4"	20"x20"x1"	20"x20"x1 3/4"	20"x20"x3/4"	20"x20"x3/4"	20"x20"x3/4"	20"x20"x3/4"	32"x18"x1"	20"x20"x3/4"	32"x18"x1"	20"x20"x1"	32"x18"x1"	20"x20"x3/4"	32"x18"x1"	20"x20"x3/4"	20"x20"x1 1/2"	20"x20"x1"	20"x20"x1 1/2"	20"x20"x3/4"				20"x20"x3/4"	20"x20"x2"					BASE PLATE	BASE PLATE		
	ANCHOR BOLTS TYPE	(4) - 3/4" ø	(6) - 1 1/2" ø	(6) - 1 3/4" ø	(6) - 1 1/2" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 1" ø	(4) - 3/4" ø	(6) - 1" ø	(6) - 1" ø	(6) - 1 1/8" ø	(4) - 3/4" ø	(6) - 1" ø	(4) - 3/4" ø	(6) - 1 1/4" ø	(6) - 1 1/2" ø	(6) - 1 1/4" ø	(4) - 3/4" ø				(4) - 3/4" ø	(6) - 1 1/2" ø				ANCHOR BOLTS				
	ELEV. @ BOTTOM																																ELEV. @ BOTTOM	
PEDESTAL	SIZE	N.A TYP.																														SIZE	PEDESTAL	
	VERT. REBARS	N.A TYP.																														VERT. REBARS		
	TIES																															TIES		
FOOTING	SIZE	SEE PLAN AND SCHEDULE TYP								COMBINED FOOTING (SEE H.1-1)	COMBINED FOOTING (SEE H.1-1)																						SIZE	FOOTING
	THICKNESS	SEE PLAN AND SCHEDULE TYP																															THICKNESS	
	REBAR (E.W. BOT)	SEE PLAN AND SCHEDULE TYP																															REBAR (E.W. BOT)	
REMARKS			LATERAL STL COL UPLIFT= 96K SHEAR= 115K	LATERAL COL UPLIFT= 0K SHEAR= 175K	LATERAL COL UPLIFT= 66K SHEAR= 125K					LATERAL COL UPLIFT= 0K SHEAR= 30K		LATERAL COL UPLIFT= 0K SHEAR= 65K	LATERAL COL UPLIFT= 0K SHEAR= 65K	LATERAL COL UPLIFT= 0K SHEAR= 70K		LATERAL COL UPLIFT= 0K SHEAR= 50K	LATERAL COL UPLIFT= 0K SHEAR= 10K	LATERAL COL UPLIFT= 85K SHEAR= 95K	LATERAL COL UPLIFT= 0K SHEAR= 120K	LATERAL COL UPLIFT= 85K SHEAR= 95K					LATERAL COL UPLIFT= 135K SHEAR= 130K						REMARKS			

COLUMN SCHEDULE NOTES:

A. ALL FOOTINGS AT LAT. COLUMNS SHALL BE REINF. WITH #5@12" O.C. AT TOP IN ADDITION TO THE BOTTOM REINF. U.O.N.

B. FOR BASE PLATE ORIENTATION, THE BIGGER THE DIMENSION OF THE BASE PLATE GIVEN IS PARALLEL TO THE WEB OF THE COLUMN.

C. FOR COLUMN ORIENTATION, SEE PLANS.

D. ALL LOADS INDICATED ON THIS SCHEDULE ARE CUMULATIVE SERVICE LOADS IN KIPS.

E. CONC. COL. DIM. PRESENTED AS SUCH FIRST DIM. IS COL. DIM. IN N-S DIRECTION SECOND DIM. IS COL. DIM. IN E-W DIRECTION

COLUMN SCHEDULE - AREA A,B,C																																			
MARK		E-1.3	F-1.3	G-1.3	H-1.3	H.1-1.3	I-1.3		S-1.3	S.5-1.3	T-1.3	U-1.4	A-1.6	B-1.6	C-1.6	D-1.6	E-1.6	F-1.6	G-1.6	H-1.6	H.1-1.6	I-1.6	S-1.6	S.5-1.6	T-1.6	U-1.6	A-2	B-2	C-2	MARK		FLOOR			
FLOOR																																		FLOOR	
HIGH ROOF																																		HIGH ROOF	
MAIN ROOF																																		MAIN ROOF	
FIRST FLOOR												W14x90	80	W14x90	105													W14x90	225	W14x61	240		W14x90	240	FIRST FLOOR
LOWER LEVEL		20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 10#9	20x24" 10#9	20x36" 10#9		20x24" 10#9	20x24" 10#9	20x24" 10#9	30x24" 10#9	30x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 10#9	20x24" 10#9	20x36" 10#9	20x24" 10#9	20x24" 10#9	20x24" 10#9	20x24" 10#9	30x24" 10#9	30x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10		LOWER LEVEL	
COLUMN LOAD		335	335	330	200	180	245		260	310	240	180	285	375	410	380	390	385	380	215	215	285	310	355	325	425	295	415	690				COLUMN LOAD		
BASE PLATE	BASE PLATE											30"x24"x1"	20"x20"x1"														20"x20"x1 3/4"	20"x20"x2"		20"x20"x3/4"			BASE PLATE		
	ANCHOR BOLTS TYPE											(4) - 3/4" ø	(6) - 1 1/4" ø													(6) - 1 1/2" ø	(6) - 1 1/2" ø		(4) - 3/4" ø			ANCHOR BOLTS			
	ELEV. @ BOTTOM																																	ELEV. @ BOTTOM	
PEDESTAL	SIZE																																	SIZE	
	VERT. REBARS																																	VERT. REBARS	
	TIES																																	TIES	
FOOTING	SIZE					COMBINED FOOTING (SEE H.1-1.3)	COMBINED FOOTING (SEE H.1-3)														COMBINED FOOTING (SEE H.1-1.3)	COMBINED FOOTING (SEE H.1-3)												SIZE	
	THICKNESS																																	THICKNESS	
	REBAR (E.W. BOT)																																		REBAR (E.W. BOT)
REMARKS													LATERAL COL UPLIFT= 0K SHEAR= 95K														LATERAL COL UPLIFT= 100K SHEAR= 115K	LATERAL COL UPLIFT= 130K SHEAR= 130K		LATERAL COL UPLIFT= 0K SHEAR= 0K			REMARKS		

COLUMN SCHEDULE - AREA A,B,C																																
MARK		D-2	E-2	F-2	G-2	H-2	H.1-2	I-2	J-2	K-2	L-2	M-2	N-2	N.1-2	P-2	Q-2	R-2	S-2	S.5-2	T-2	U-2	A-2.7	B-2.7	C-2.7	D-2.7	E-2.7	F-2.7	G-2.7	A-2.5	FLOOR		
HIGH ROOF																															HIGH ROOF	
MAIN ROOF																															MAIN ROOF	
FIRST FLOOR		W14x90 345		W14x109 345		W14x109 220	W24x50 200		W24x370 365		W24x370 390		W24x308 250	W14x109 200		W14x90 315		W14x120 355			W14x61 105	W14x90 65									FIRST FLOOR	
LOWER LEVEL		20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x24" 12#10	20x36" 10#9	30"x36" 12#10	30"x36" 10#9	30"x36" 12#10	30"x36" 10#9	20"x36" 12#10	20"x36" 10#9	30"x36" 10#9	30"x36" 12#10	30"x36" 10#9	20"x24" 12#10	20"x24" 10#9	20"x24" 10#9	20"x24" 10#9	20"x24" 12#10	20"x24" 10#9	20"x24" 12#10	20"x24" 12#10	20"x24" 12#10	20"x24" 12#10	20"x24" 12#10	20"x24" 12#10	30"x24" 10#9	LOWER LEVEL	
COLUMN LOAD		765	430	750	425	445	420	375	620	265	710	255	405	350	255	720	220	550	395	350	305	225	380	410	420	480	420	470	110	COLUMN LOAD		
BASE PLATE	BASE PLATE	20"x20"x1"		20"x20"x1"		20"x20"x1"	32"x18"x1"		32"x18"x1"		32"x18"x1"		32"x18"x1"	20"x20"x1"		20"x20"x1"		20"x20"x1"			20"x20"x1"	20"x20"x3/4"									BASE PLATE	BASE PLATE
	ANCHOR BOLTS TYPE	(4) - 3/4" ø		(4) - 3/4" ø		(6) - 1" ø	(4) - 1" ø		(6) - 1" ø		(6) - 1" ø		(6) - 1" ø	(4) - 1" ø		(4) - 3/4" ø		(4) - 3/4" ø			(6) - 1 3/4" ø	(4) - 3/4" ø								ANCHOR BOLTS		
	ELEV. @ BOTTOM																														ELEV. @ BOTTOM	
PEDESTAL	SIZE																														SIZE	PEDESTAL
	VERT. REBARS																														VERT. REBARS	
	TIES																														TIES	
FOOTING	SIZE					COMBINED FOOTING (SEE H.1-2)	COMBINED FOOTING (SEE H.2)						COMBINED FOOTING (SEE N.1-2)	COMBINED FOOTING (SEE M.9-2)																	SIZE	FOOTING
	THICKNESS																														THICKNESS	
	REBAR (E.W. BOT)																														REBAR (E.W. BOT)	
REMARKS		LATERAL COL. UPLIFT= 0K SHEAR= 0K		LATERAL COL. UPLIFT= 0K SHEAR= 0K		LATERAL COL. UPLIFT= 0K SHEAR= 35K	LATERAL COL. UPLIFT= 0K SHEAR= 30K		LATERAL COL. UPLIFT= 0K SHEAR= 50K		LATERAL COL. UPLIFT= 0K SHEAR= 60K		LATERAL COL. UPLIFT= 0K SHEAR= 45K	LATERAL COL. UPLIFT= 0K SHEAR= 10K		LATERAL COL. UPLIFT= 0K SHEAR= 0K		LATERAL COL. UPLIFT= 0K SHEAR= 0K			LATERAL COL. UPLIFT= 0K SHEAR= 170K									REMARKS		

COLUMN SCHEDULE - AREA A,B,C																														
FLOOR	MARK	H-2.7	H.1-2.7	I-2.7	J-2.7	K-2.7	L-2.7	M-2.7	N-2.7	N.1-2.7	P-2.7	Q-2.7	R-2.7	S-2.7	S.5-2.7	T-2.7	U-2.7	A-3	B-3	C-3	D-3	F-3	H-3	H.1-3	I-3	J-3	K-3	L-3	M-3	MARK
	FLOOR																													
HIGH ROOF																														HIGH ROOF
MAIN ROOF																														MAIN ROOF
FIRST FLOOR																														FIRST FLOOR
LOWER LEVEL																														LOWER LEVEL
BASE PLATE	COLUMN LOAD																													COLUMN LOAD
	BASE PLATE																													BASE PLATE
	ANCHOR BOLTS TYPE																													ANCHOR BOLTS
	ELEV. @ BOTTOM																													ELEV. @ BOTTOM
PEDESTAL	SIZE																													SIZE
	VERT. REBARS																													VERT. REBARS
	TIES																													TIES
FOOTING	SIZE																													SIZE
	THICKNESS																													THICKNESS
	REBAR (E.W. BOT)																													REBAR (E.W. BOT)
REMARKS																														REMARKS

COLUMN SCHEDULE NOTES:

A. ALL FOOTINGS AT LAT. COLUMNS SHALL BE REINF. WITH #5@12" O.C. AT TOP IN ADDITION TO THE BOTTOM REINF. U.O.N.

B. FOR BASE PLATE ORIENTATION, THE BIGGER THE DIMENSION OF THE BASE PLATE GIVEN IS PARALLEL TO THE WEB OF THE COLUMN.

C. FOR COLUMN ORIENTATION, SEE PLANS.

D. ALL LOADS INDICATED ON THIS SCHEDULE ARE CUMULATIVE SERVICE LOADS IN KIPS.

E. CONC. COL. DIM. PRESENTED AS SUCH: FIRST DIM. IS COL. DIM. IN N-S DIRECTION SECOND DIM. IS COL. DIM. IN E-W DIRECTION

COLUMN SCHEDULE - AREA A,B,C																																			
MARK			N-3	N.1-3		Q-3	S-3	S.5-3	U-3	A-3.2	B-3.2	C-3.3	D-3.3	E-3.3	F-3.3	G-3.3	H-3.3	H.1-3.3	I-3.3	J-3.3	K-3.3	L-3.3	M-3.3	M.9-3.3	N-3.3	P-3.3	Q-3.3	R-3.3		MARK					
FLOOR																																FLOOR			
HIGH ROOF																															HIGH ROOF				
MAIN ROOF			W14x109																												MAIN ROOF				
FIRST FLOOR			W24x250	225	W14x90	160			W14x90	290	W14x109	315			W14x48	65		W14x90	70												FIRST FLOOR				
LOWER LEVEL			20'x36" 10#9		20'x36" 10#9				20'x36" 10#9		20'x24" 16#10		20'x24" 16#10		20'x24" 16#10		20'x24" 16#10		20'x24" 16#10		20'x24" 16#10		20'x36" 10#9		20'x36" 10#9		20'x36" 10#9		20'x24" 10#9	20'x36" 10#9	20'x36" 10#9	LOWER LEVEL			
COLUMN LOAD			340	275		500	500	235	210	385	425	430	440	500	440	485	225	220	395	405	410	405	395	220	225	485	440	440		COLUMN LOAD					
BASE PLATE	BASE PLATE		32"x18"x1"	20x20x3/4"		20"x20"x1"	20"x20"x1.25"			20"x20"x3/4"	20"x20"x3/4"																				BASE PLATE	BASE PLATE			
	ANCHOR BOLTS TYPE		(4) - 1" ø	(4) - 3/4" ø		(4) - 3/4" ø	(4) - 3/4" ø			(4) - 3/4" ø	(4) - 3/4" ø																				ANCHOR BOLTS				
	ELEV. @ BOTTOM																																ELEV. @ BOTTOM		
PEDESTAL	SIZE																														SIZE	PEDESTAL			
	VERT. REBARS																														VERT. REBARS				
	TIES																														TIES				
FOOTING	SIZE		COMBINED FOOTING (SEE N.1-3)	COMBINED FOOTING (SEE M.9-3)													COMBINED FOOTING (SEE H.1-3.3)	COMBINED FOOTING (SEE H.3.3)						COMBINED FOOTING (SEE N.1-3.3)	COMBINED FOOTING (SEE M.9-3.3)					SIZE	FOOTING				
	THICKNESS																																		THICKNESS
	REBAR (E.W. BOT)																																		
REMARKS			LATERAL COL UPLIFT= 0K SHEAR= 30K	LATERAL COL UPLIFT= 0K SHEAR= 0K		LATERAL COL UPLIFT= 0K SHEAR= 0K	LATERAL COL UPLIFT= 0K SHEAR= 0K																								REMARKS				

COLUMN SCHEDULE - AREA A,B,C																																	
MARK		S-3.3	S.5-3.3	T-3.3	U-3.3	A-4	B-4	C-4	D-4	E-4	F-4	G-4	H-4	H.1-4	I-4	J-4	K-4	L-4	M-4	N-4	N.1-4	P-4	Q-4	R-4	S-4	S.5-4	T-4	U-4		MARK		FLOOR	
HIGH ROOF																																	HIGH ROOF
MAIN ROOF																																	MAIN ROOF
FIRST FLOOR				W1490 90	W1490 90	W1461 45	W1461 130	W1490 135	W1474 250	W1461 50	W1462 105	W1461 75	W1461 70	W24192 75	W1490 20	W24192 135	W1499 70	W24192 180	W1490 65	W24192 120	W1461 75	W1468 25	W1468 205	W1461 75	W1462 250				W1474 65			FIRST FLOOR	
LOWER LEVEL		20'x24" 10#9	20'x24" 10#9	20'x24" 10#9	30'x24" 10#9	30'x36" 24#10	30'x36" 24#10	30'x36" 24#10	30'x36" 24#10	30'x36" 24#10	30'x36" 24#10	30'x36" 24#10	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	30'x36" 10#9	LOWER LEVEL		
COLUMN LOAD		335	405	410	365	350	470	485	565	370	485	350	270	250	350	470	375	495	350	295	255	350	515	365	510	330	315	255			COLUMN LOAD		
BASE PLATE	BASE PLATE			20"x20"x3/4"	20"x20"x3/4"	20"x20"x3/4"	20"x20"x1 3/4"	20"x20"x1"	20"x20"x1 3/4"	20"x20"x3/4"	20"x20"x3/4"	20"x20"x3/4"	20"x20"x3/4"	32"x18"x1"	20"x20"x1 1/4"	20"x20"x1 3/4"	20"x20"x1"	32"x18"x1"	20"x20"x3/4"	32"x18"x1"	20"x20"x3/4"	20"x20"x3/4"	20"x20"x1 1/2"	20"x20"x1"	20"x20"x1 1/2"			20"x20"x3/4"		BASE PLATE	BASE PLATE		
	ANCHOR BOLTS TYPE			(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(6) - 1 1/2" ø	(6) - 1 3/4" ø	(6) - 1 1/2" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 1" ø	(4) - 1" ø	(6) - 1" ø	(6) - 1" ø	(6) - 1" ø	(4) - 3/4" ø	(6) - 1" ø	(4) - 3/4" ø	(4) - 3/4" ø	(6) - 1 1/4" ø	(6) - 1 1/2" ø	(6) - 1 1/4" ø			(4) - 3/4" ø		ANCHOR BOLTS			
	ELEV. @ BOTTOM																															ELEV. @ BOTTOM	
PEDESTAL	SIZE																															SIZE	PEDESTAL
	VERT. REBARS																															VERT. REBARS	
	TIES																															TIES	
FOOTING	SIZE								COMBINED FOOTING (SEE C.9-5.1 AREA D)	COMBINED FOOTING (SEE E.2-5.1 AREA D)	COMBINED FOOTING (SEE E.8-5.1 AREA D)		COMBINED FOOTING (SEE H.1-4)	COMBINED FOOTING (SEE H-4)					COMBINED FOOTING (SEE L.9-5 AREA E)	COMBINED FOOTING (SEE K.2-5 AREA E)	COMBINED FOOTING (SEE L-5 AREA E)	COMBINED FOOTING (SEE L.9-5 AREA E)	COMBINED FOOTING (SEE N.1-4)	COMBINED FOOTING (SEE M.9-4)		COMBINED FOOTING (SEE Q.2-5 AREA E)	COMBINED FOOTING (SEE R.8-5 AREA E)		COMBINED FOOTING (SEE U-5 AREA E)		SIZE	FOOTING	
	THICKNESS																																
	REBAR (E.W. BOT)																																REBAR (E.W. BOT)
REMARKS						LATERAL COL UPLIFT= 105K SHEAR= 105K	LATERAL COL UPLIFT= 0K SHEAR= 175K	LATERAL COL UPLIFT= 80K SHEAR= 115K						LATERAL COL UPLIFT= 0K SHEAR= 25K			LATERAL COL UPLIFT= 0K SHEAR= 50K	LATERAL COL UPLIFT= 0K SHEAR= 65K	LATERAL COL UPLIFT= 10K SHEAR= 50K		LATERAL COL UPLIFT= 0K SHEAR= 35K		LATERAL COL UPLIFT= 65K SHEAR= 80K	LATERAL COL UPLIFT= 0K SHEAR= 125K	LATERAL COL UPLIFT= 65K SHEAR= 80K						REMARKS		

COLUMN SCHEDULE NOTES:

- A. ALL COLUMNS ARE SUPPORTED BY 18"x18" MIN. CONC. PIER REINF. W/4#9 VERT. AND #3@12" O.C. TIES (U.O.N.) IF REQUIRED.
- B. ALL FOOTINGS AT LAT. COLUMNS SHALL BE REINF. WITH #5@12" O.C. AT TOP IN ADDITION TO THE BOTTOM REINF. U.O.N.
- C. FOR BASE PLATE ORIENTATION, THE BIGGER THE DIMENSION OF THE BASE PLATE GIVEN IS PARALLEL TO THE WEB OF THE COLUMN.
- D. FOR COLUMN ORIENTATION, SEE PLANS.
- E. ALL LOADS INDICATED ON THIS SCHEDULE ARE CUMULATIVE SERVICE LOADS IN KIPS.

[illegible]

COLUMN SCHEDULE - AREA E,F																																					
MARK \ FLOOR		J-2.5	K-2.5	L-5	L-1-9	L-1-11.3	L-9.5	M-8-9	M-8-11.3	N-6-5	P-2-9	P-2-11.3	Q-2.5	Q-9-9	Q-9-11.3	R-8-5	U-5	U-6.1	I-2-11.6	I-2-10.1	I-3-10	J-2-6.3	J-2-11.6	J-1-8	J-2-9	K-2-9	L-9-9	N-6-9	Q-2-9	R-8-9	S-3-9	S-8-9	FLOOR \ MARK				
HIGH ROOF																																			HIGH ROOF		
MAIN ROOF																																		W1565	MAIN ROOF		
LOW ROOF																																				LOW ROOF	
FIRST FLOOR		W10x49	W10x49	W10x49	W10x54	W10x68	W10x77	W10x68	W10x68	W10x68	W10x60	W10x49	W10x60	W10x49	W10x60	W12x67	W10x77	W10x33		W10x33			W10x49	W10x33	W18x25	W10x45	W12x79	W12x79	W12x79	W12x58	W12x72	W12x72	W12x66		FIRST FLOOR		
LOWER LEVEL		24"x24" 6x6	18"x24" 6x6	18"x24" 6x6			18"x24" 6x6						18"x24" 6x6			18"x24" 6x6	32"x24" 10x9	45		65			24"x24" 8x8			18"x24" 6x6									LOWER LEVEL		
COLUMN LOAD		130	280	150	220	220	300	230	220	245	220	170	200	190	190	265	205	45		65	45	605	155	55	70	180	340	320	300	210	290	200	450	COLUMN LOAD			
BASE PLATE	BASE PLATE	18"x18"x1 1/4"	18"x18"x1 3/4"	18"x18"x1"	16"x16"x1"	16"x16"x1"	18"x18"x1 3/4"	16"x16"x3/4"	16"x16"x1"	16"x16"x1"	16"x16"x1"	16"x16"x3/4"	16"x16"x3/4"	16"x16"x3/4"	16"x16"x3/4"	16"x16"x1"	18"x18"x1"	18"x18"x1"	18"x18"x1"	16"x16"x3/4"			18"x18"x1 1/4"	16"x16"x3/4"		18"x18"x1 1/4"	18"x18"x1 1/4"	18"x18"x1 1/4"	18"x18"x1 1/4"	18"x18"x3/4"	18"x18"x1 1/4"	16"x16"x1"	18"x18"x1 1/2"	BASE PLATE	ELEV.		
	ANCHOR BOLTS TYPE	(6) - 1 1/4" ø	(6) - 1 1/2" ø	(6) - 1 3/4" ø	(4) - 1" ø	(4) - 1" ø	(6) - 1 1/2" ø	(4) - 3/4" ø	(4) - 1" ø	(4) - 3/4" ø	(4) - 1" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(6) - 1" ø	(6) - 1 1/4" ø	(4) - 1" ø	(4) - 3/4" ø		(6) - 1 1/4" ø	(4) - 3/4" ø		(6) - 1 1/4" ø	(6) - 1" ø	(4) - 1" ø	(4) - 1" ø	(4) - 1" ø	(4) - 1" ø	(6) - 1 3/8" ø	ANCHOR BOLTS					
	ELEV. @ BOTTOM																																			ELEV. @ BOTTOM	
PEDESTAL	SIZE																																		SIZE	PEDESTAL	
	VERT. REBARS																																	VERT. REBARS			
	TIES																																	TIES			
FOOTING	SIZE																																		SIZE	FOOTING	
	THICKNESS																																	THICKNESS			
	REBAR (E.W. BOT)																																	REBAR (E.W. BOT)			
REMARKS		LATERAL COL UPLIFT= 60K SHEAR=75K	LATERAL COL UPLIFT= 90K SHEAR=120K	LATERAL COL UPLIFT= 0K SHEAR= 150K			LATERAL COL UPLIFT= 65K SHEAR= 105K										LATERAL COL UPLIFT= 0K SHEAR= 45K	LATERAL COL UPLIFT= 5K SHEAR= 90K	LATERAL COL UPLIFT= 0K SHEAR= 20K				LATERAL COL UPLIFT= 55K SHEAR= 70K			LATERAL COL UPLIFT= 5K SHEAR= 0K	LATERAL COL UPLIFT= 55K SHEAR= 80K	LATERAL COL UPLIFT= 0K SHEAR= 55K	LATERAL COL UPLIFT= 0K SHEAR= 0K			LATERAL COL UPLIFT= 0K SHEAR= 0K		LATERAL COL UPLIFT= 25K SHEAR= 120K	REMARKS		

COLUMN SCHEDULE NOTES:

A. ALL FOOTINGS AT LAT. COLUMNS SHALL BE REINF. WITH #5@12" O.C. AT TOP IN ADDITION TO THE BOTTOM REINF. U.O.N.

B. FOR BASE PLATE ORIENTATION, THE BIGGER THE DIMENSION OF THE BASE PLATE GIVEN IS PARALLEL TO THE WEB OF THE COLUMN.

C. FOR COLUMN ORIENTATION, SEE PLANS.

D. ALL LOADS INDICATED ON THIS SCHEDULE ARE CUMULATIVE SERVICE LOADS IN KIPS.

E. ALL COLUMNS ARE SUPPORTED BY 18"x18" MIN. CONC. PIER REINF.
W/4#9 VERT. AND #3@12" O.C. TIES (U.O.N.) IF REQUIRED.

COLUMN SCHEDULE - AREA E,F																																				
MARK		T-7-9	U-8-9	J-1-9-4	T-7-10-2	T-7-11-5	J-2-10	I-2-11-3	J-2-11-3	K-2-11-3	L-9-11-3	N-6-11-3	Q-2-11-3	R-8-11-3	S-8-11-3	T-7-11-3	I-2-12	J-2-12	K-2-12	L-9-12	N-6-12	Q-2-12	R-5-12	S-8-12	T-7-12	I-2-13	J-2-13	K-2-13	L-9-13	N-6-13	P-3-13	Q-2-13	MARK			
FLOOR																																			FLOOR	
HIGH ROOF																																			HIGH ROOF	
MAIN ROOF																																			MAIN ROOF	
LOW ROOF																																			LOW ROOF	
FIRST FLOOR	W10x54	W10x77	W8x48	W10x33	W10x33	W10x33	W10x49	W10x49	W12x72	W12x65	W12x79	W12x65	W12x72	W12x87	W10x54	W10x33	W10x33	W10x49	W10x49	W10x60	W10x54	W10x45	W10x60	W10x33	W10x33	W10x33	W10x33	W10x33	W10x33	W10x33	W10x33	W10x33	FIRST FLOOR			
LOWER LEVEL			18"x21" 5/8"																																LOWER LEVEL	
COLUMN LOAD	305	55	85	60	30	125	70	215	330	230	260	240	280	355	175	70	120	220	255	275	305	255	150	50	55	80	100	95	85	50	50		COLUMN LOAD			
BASE PLATE	BASE PLATE	18"x18"x1 3/4"	18"x18"x1 1/4"		18"x18"x1"	16"x16"x1"	18"x18"x1"	16"x16"x3/4"	18"x18"x1"	18"x18"x1 1/4"	18"x18"x1"	18"x18"x1"	18"x18"x1 1/2"	18"x18"x1 1/4"	18"x18"x1"	16"x16"x3/4"	16"x16"x1"	16"x16"x1"	16"x16"x1"	16"x16"x1"	18"x18"x1 1/4"	18"x18"x1"	16"x16"x3/4"	16"x16"x3/4"	18"x18"x1"	18"x18"x1"	18"x18"x1"	18"x18"x1"	16"x16"x3/4"	16"x16"x3/4"	16"x16"x3/4"	16"x16"x3/4"	BASE PLATE	BASE PLATE		
	ANCHOR BOLTS TYPE	(6) - 1 3/4" ø	(6) - 1" ø		(6) - 1 3/8" ø	(4) - 1" ø	(6) - 1 1/4" ø	(4) - 3/4" ø	(6) - 1" ø	(6) - 1 1/8" ø	(4) - 1" ø	(4) - 1" ø	(4) - 1" ø	(6) - 1 1/4" ø	(6) - 1" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(6) - 1 1/8" ø	(6) - 1 1/8" ø	(4) - 3/4" ø	(4) - 3/4" ø	(6) - 1" ø	(6) - 1 1/8" ø	(6) - 1 1/8" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	(4) - 3/4" ø	ANCHOR BOLTS					
	ELEV. @ BOTTOM																																		ELEV. @ BOTTOM	
PEDESTAL	SIZE																																	SIZE	PEDESTAL	
	VERT. REBARS																																	VERT. REBARS		
	TIES																																	TIES		
FOOTING	SIZE																																		SIZE	FOOTING
	THICKNESS																																	THICKNESS		
	REBAR (E.W. BOT)																																	REBAR (E.W. BOT)		
REMARKS	LATERAL COL. UPLIFT= 110K SHEAR= 150K	LATERAL COL. UPLIFT= 45K SHEAR= 45K	LATERAL COL. UPLIFT= 0K SHEAR= 0K	LATERAL COL. UPLIFT= 0K SHEAR=100K		LATERAL COL. UPLIFT= 0K SHEAR= 90K		LATERAL COL. UPLIFT= 20K SHEAR= 60K	LATERAL COL. UPLIFT= 0K SHEAR= 60K	LATERAL COL. UPLIFT= 0K SHEAR= 0K			LATERAL COL. UPLIFT= 0K SHEAR= 60K	LATERAL COL. UPLIFT= 0K SHEAR= 0K	LATERAL COL. UPLIFT= 60K SHEAR= 60K	LATERAL COL. UPLIFT= 25K SHEAR= 25K					LATERAL COL. UPLIFT= 0K SHEAR= 65K	LATERAL COL. UPLIFT= 10K SHEAR= 65K			LATERAL COL. UPLIFT= 25K SHEAR= 25K	LATERAL COL. UPLIFT= 30K SHEAR= 60K	LATERAL COL. UPLIFT= 25K SHEAR= 65K					REMARKS				

[illegible][illegible]

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:

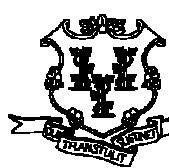
CSK/JM/BC

CHECKED BY:

AJ

SCALE:

12" = 1'-0"



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



ARCHITECT: WENDEL

KM

KM

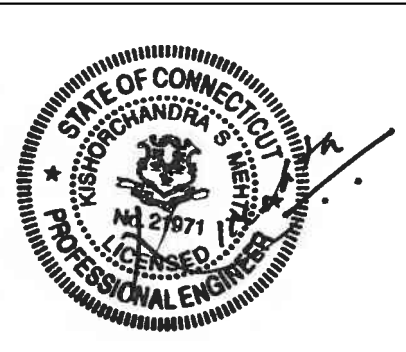
ENGINEERS: **ReSTL DESIGNERS**, CLOUGH HARBOUR ASSOC., AI ENGINEERS.

DATE _____

6/11/2014

DESIGNED BY:

RESTL DESIGNERS, INC
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:

WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT

ADDRESS:

FROST BRIDGE ROAD
WATERTOWN, CONNECTICUT 06787

DRAWING TITLE:

COLUMN SCHEDULE

PROJECT NO.

0431-0006

DRAWING NO.


S-504

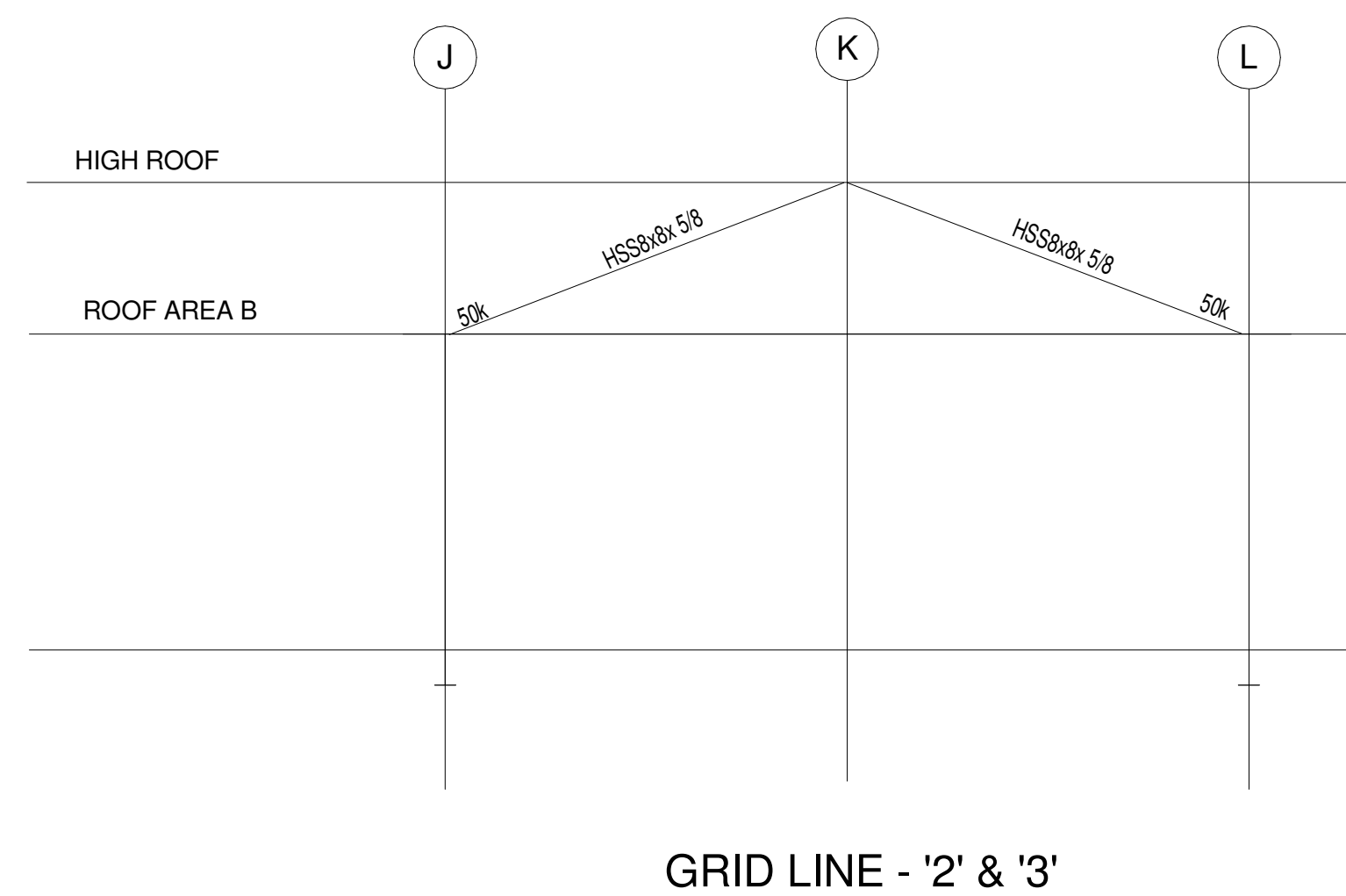
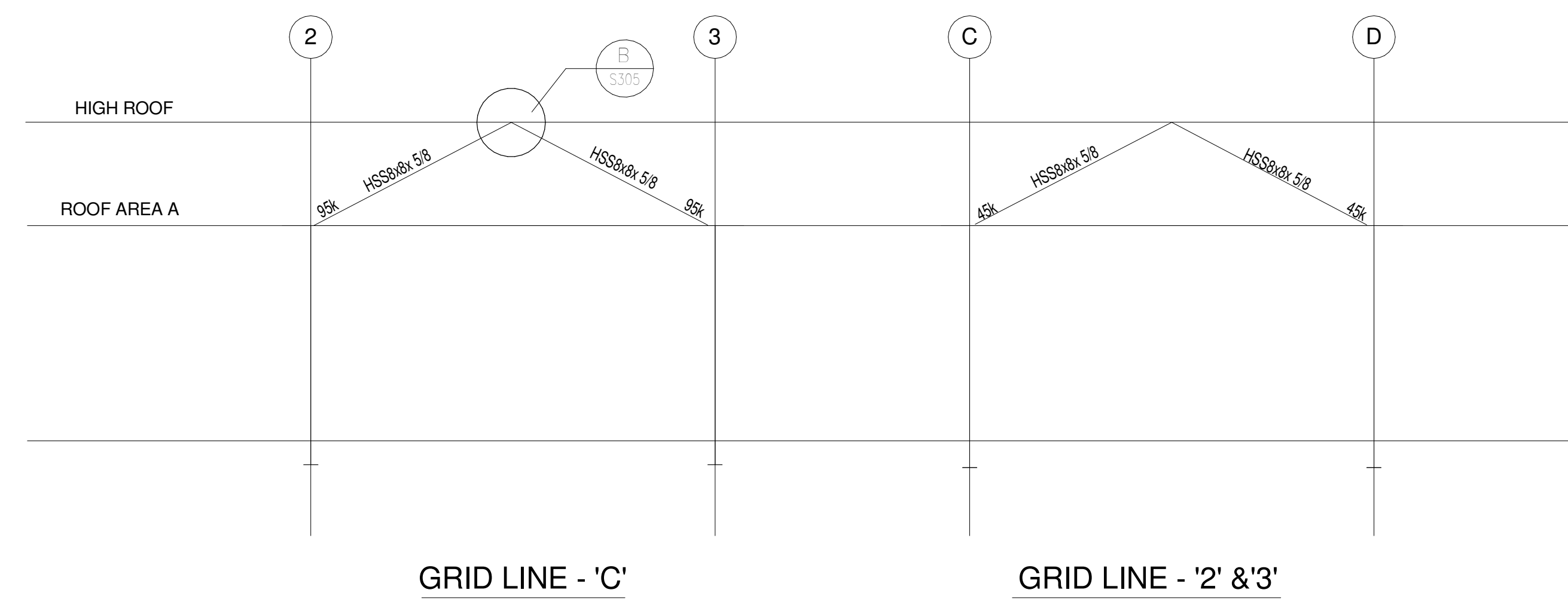
SHEET NO.

09.059

POST-TENSIONED BEAM SCHEDULE																				
MARK	SECTION		PT EFF. k	TENDON PROFILE			TOP BARS			BOTTOM BARS			SIDE BARS		STIRRUPS					REMARKS
	WIDTH, in	DEPTH, in		A, in	B, in	C, in	LE	CONT	RE	CONT.	ADD'L	PCS	SIZE	SIZE	TYPE	SPACING	END			
PTB-1	16	32	155	16.5	30.00	16.5	4 #8	3 #8	5 #8	4 #8	2 #8	2 #8	3 #5	#3	B	12@6"; R@12"	EE			
PTB-2	16	32	155	16.5	26.00	16.5	FROM LEFT	3 #8	4 #8	2 #8	2 #8	3 #5	#3	B	1@3"; R@12"	EE				
PTB-3	16	32	155	16.5	30.00	16.5	FROM LEFT	3 #8	5 #8	2 #8	2 #8	3 #5	#3	B	1@3"; R@12"	EE				
PTB-4	16	32	155	16.5	30.00	16.5	FROM LEFT	3 #8	4 #8	2 #8	2 #8	3 #5	#3	B	10@8"; R@12"	RE				
PTB-5	16	32	155	16.5	30.00	16.5	3 #8	3 #8	3 #8	2 #8	2 #8	3 #5	#3	B	1@3"; R@12"	EE				
PTB-6	16	32	155	16.5	30.00	16.5	4 #8	3 #8	4 #8	2 #8	2 #8	3 #5	#3	B	1@3"; R@12"	EE				
PTB-7	16	32	155	16.5	32.00	16.5	FROM LEFT	3 #8	4 #8	2 #8	2 #8	3 #5	#3	B	10@8"; R@12"	EE				
PTB-8	16	32	155	16.5	24.00	16.5	5 #9	4 #8	6 #9	4 #8	2 #8	3 #5	#3	B	20@6"; R@12"	EE				
PTB-9	16	32	155	16.5	28.00	16.5	FROM LEFT	4 #8	5 #9	4 #8	2 #8	3 #5	#3	B	20@6"; R@12"	EE				
PTB-10	16	32	155	16.5	26.00	16.5	6 #9	4 #8	6 #9	4 #8	2 #8	3 #5	#3	B	20@6"; R@12"	EE				
PTB-11-31	NOT USED																			
PTB-32	52	32	1200	20.00	8.0	22.00		5 #8			5 #8		2 #4	#4	A	1@3"; 12@22"; R@22"	EE	Bldg A Line A		
PTB-33	52	32	1200	22.00	21.00	22.00		5 #8			5 #8		2 #4	#4	A	1@3"; R@22"	EE			
PTB-34	52	32	1200	22.00	19.00	22.00		5 #8			5 #8		2 #4	#4	A	1@3"; R@22"	EE			
PTB-35	36	32	920	22.00	19.00	22.00	4 #8			4 #8		2 #4	#4	A	1@3"; R@22"	EE				
PTB-35A	36	32	920	22.00	19.00	22.00	4 #8			4 #8		2 #4	#4	A	1@3"; R@22"	EE				
PTB-36	36	32	920	22.00	16.00	22.00	4 #8			4 #8		2 #4	#4	A	1@3"; R@22"	EE				
PTB-37	36	32	920	22.00	16.00	22.00	4 #8			4 #8		2 #4	#4	A	1@3"; R@22"	EE				
PTB-38	36	32	920	22.00	19.00	20.00	4 #8			4 #8		2 #4	#4	A	1@3"; R@22"	EE				
PTB-39	48	32	680	20.00	6.00	22.00	5 #7			5 #7		2 #4	#4	A	1@3"; 4@16"; R@22"	EE	Bldg A Line U			
PTB-40	48	32	680	22.00	17.5	22.00	5 #7			5 #7		2 #4	#4	A	1@3"; R@22"	EE				
PTB-41	48	32	680	22.00	17.5	22.00	5 #7			5 #7		2 #4	#4	A	1@3"; R@22"	EE				
PTB-42	48	32	680	22.00	6.5	22.00	5 #7			5 #7		2 #4	#4	A	1@3"; R@22"	EE				
PTB-43	48	32	680	22.00	12.00	22.00	5 #7			5 #7		2 #4	#4	A	1@3"; R@22"	EE				
PTB-44	48	32	680	22.00	12.00	20.00	5 #7			5 #7		2 #4	#4	A	1@3"; R@22"	EE				

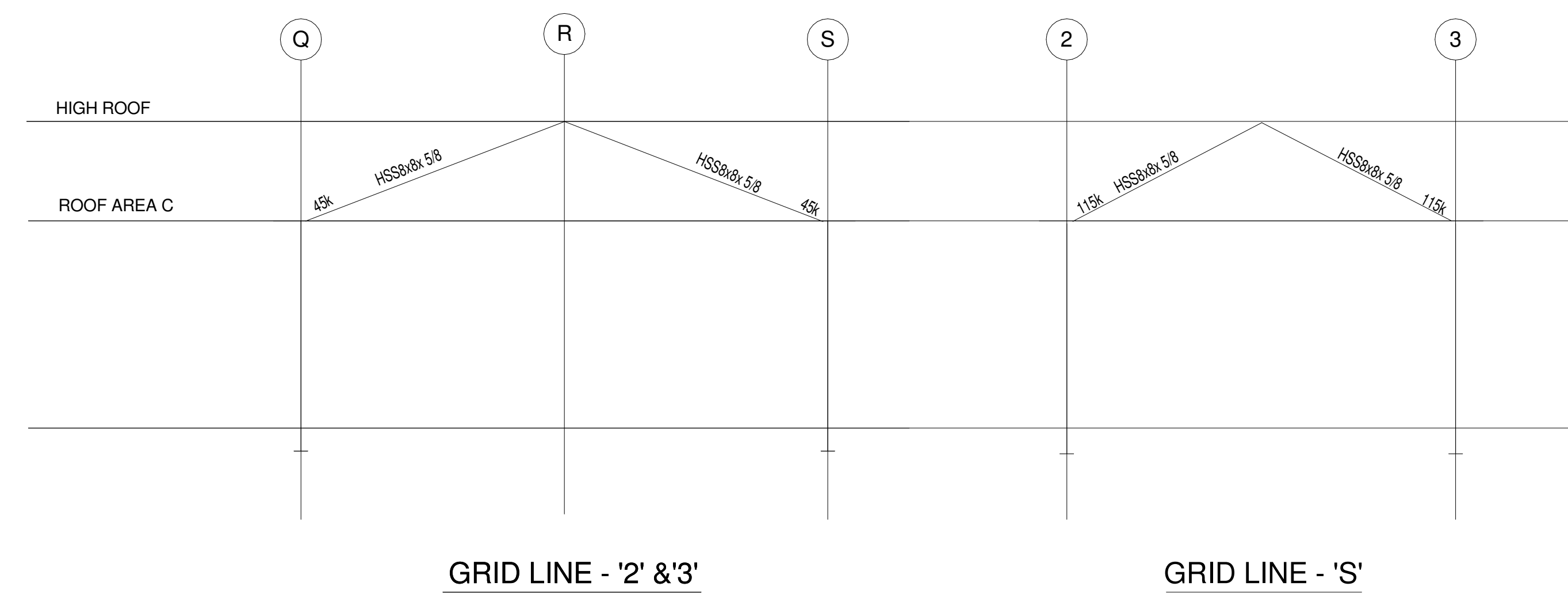
1. ALL BOTTOM BARS ENDING AT SUPPORT SHALL BE EXTENDED TO 1/3 CLEAR ADJACENT SPAN
2. TENDONS & MILD REINFORCEMENT SHALL BE SLIGHTLY MODIFIED TO REFLECT LATEST SECTION DIMENSIONS.

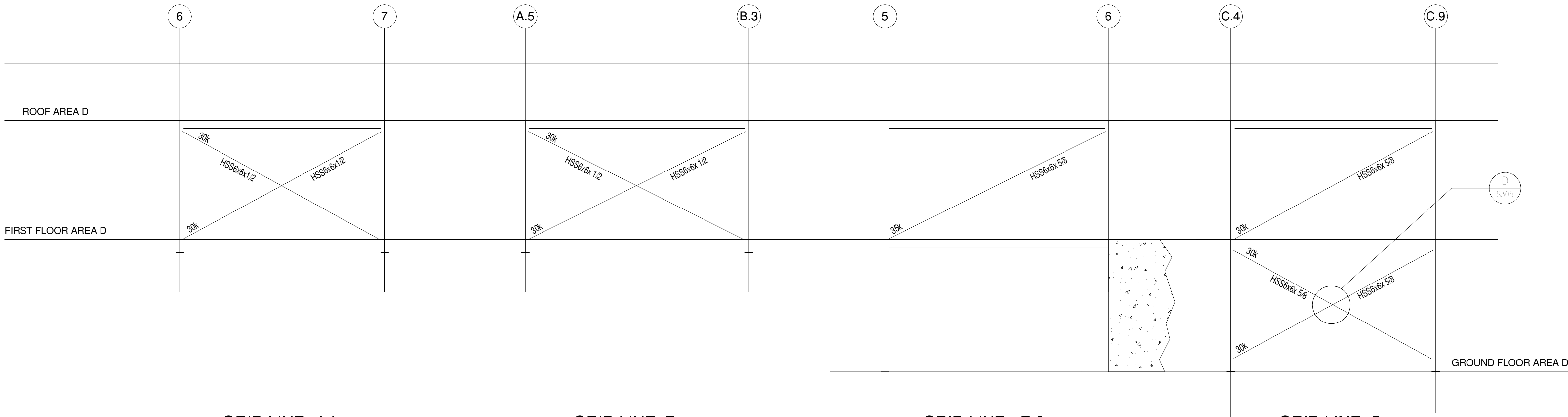
				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		<div>DESIGNED BY: RESTL DESIGNERS, INC. 702 RUSSELL AVENUE, SUITE 400 GAITHERSBURG, MD 20877</div> <div></div>		PROJECT TITLE: <div>WATERBURY BUS MAINTENANCE FACILITY REPLACEMENT</div>		ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787		PROJECT NO. 0431-0006	
				CHECKED BY: Checker		<div>ARCHITECT: WENDEL</div> <div>APPROVED BY: Approver</div>		<div>ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL</div> <div>DATE: 6/11/2014</div>		DRAWING TITLE: BEAM SCHEDULE		DRAWING NO. S-505	
REV. DATE DESCRIPTION SHEET NO. REVISIONS				SCALE: 12" = 1'-0"								SHEET NO. 09.060	
FILENAME:													



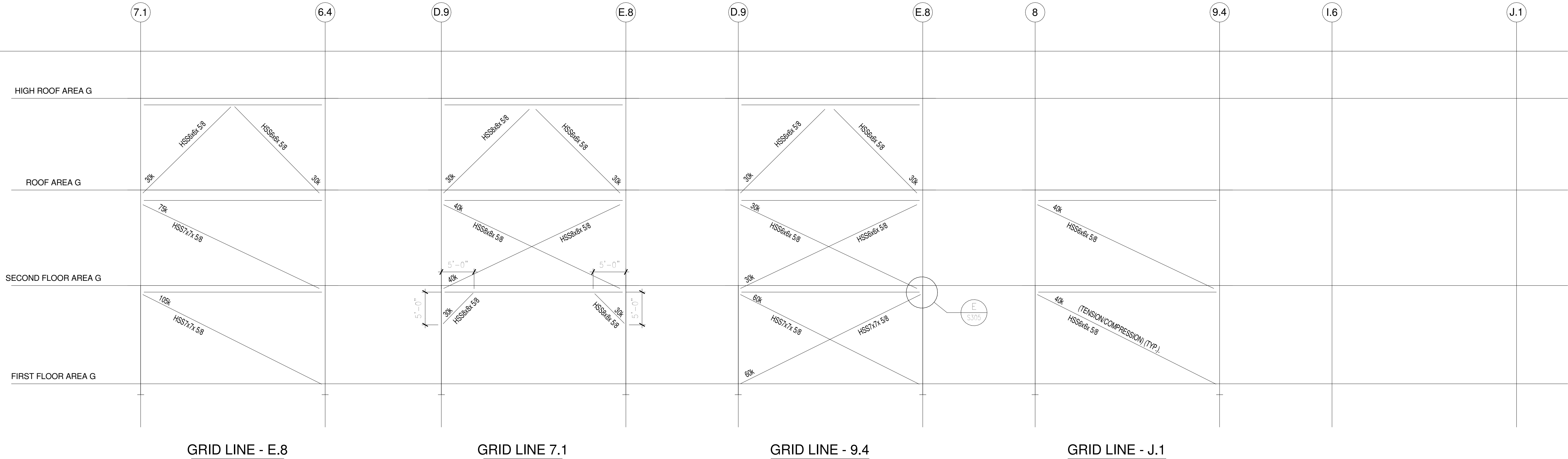
NOTES:

1. DIAGONAL FORCE CONNECTION IN MEMBERS SHALL BE DESIGNED FOR TENSION/COMPRESSION CASES.

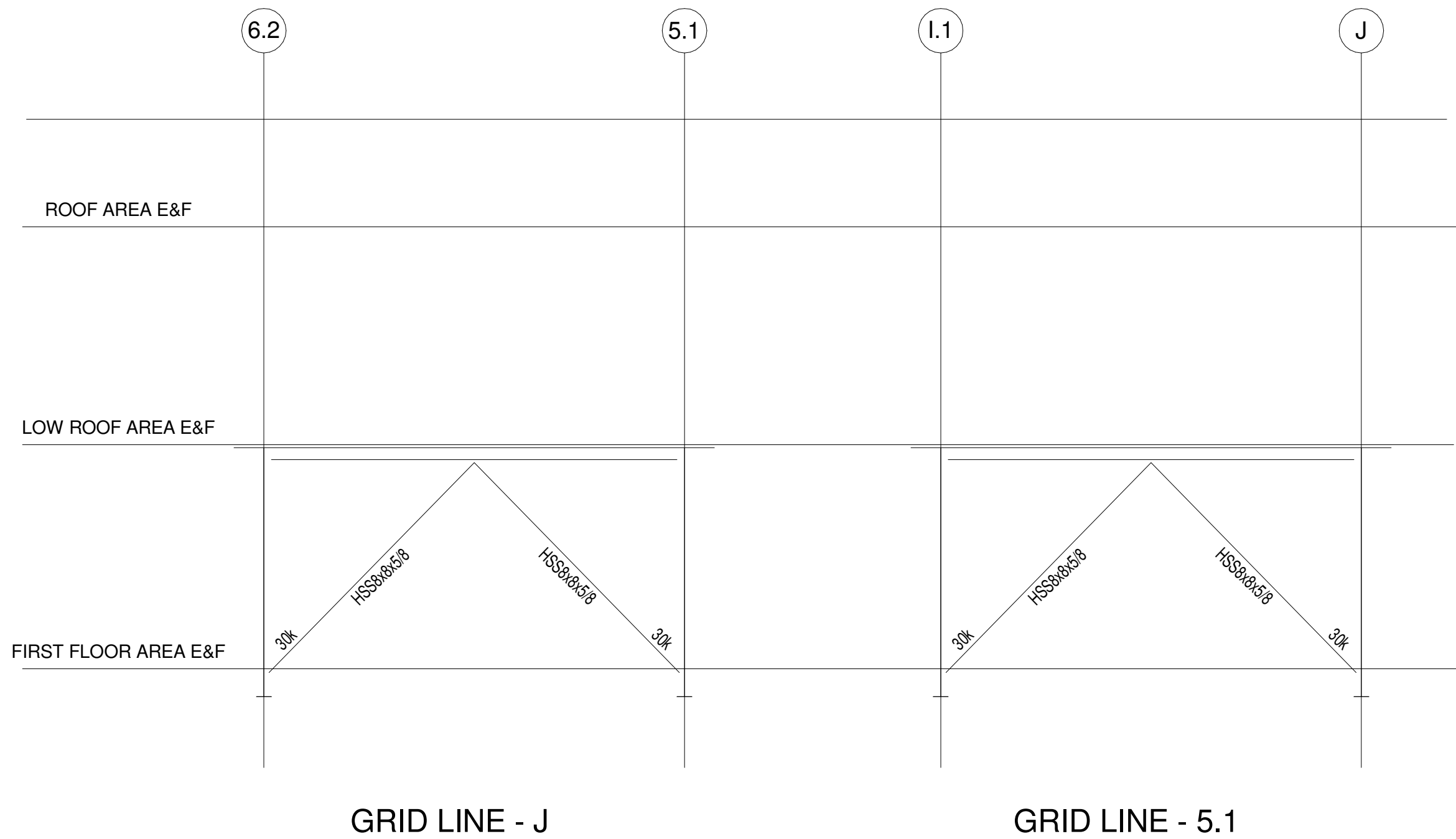
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AREA "D"



AREA "G"

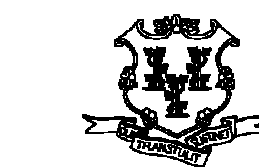


NOTES:
1. DIAGONAL FORCE CONNECTION IN MEMBERS SHALL BE DESIGNED FOR TENSION/COMPRESSION CASES.

REV.	DATE	DESCRIPTION	SHEET NO.
		REVISIONS	
FILENAME:			

THE INFORMATION, INCLUDING
ESTIMATED QUANTITIES OF
WORK, SHOWN ON THESE
SHEETS IS BASED ON LIMITED
INVESTIGATIONS BY THE STATE
AND IS IN NO WAY WARRANTED
TO INDICATE THE CONDITIONS OF
ACTUAL QUANTITIES OF WORK
WHICH WILL BE REQUIRED.

DESIGNER/DRAFTER:	CSK/JM/BC
CHECKED BY:	AJ
SCALE:	1/8" = 1'-0"

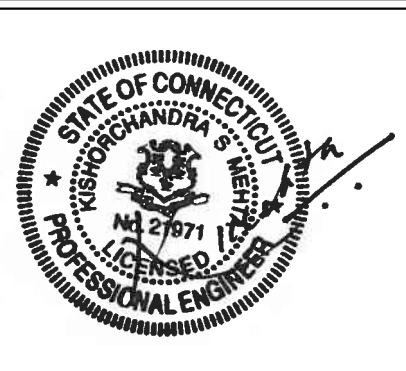


STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



ARCHITECT: WENDEL	ENGINEERS: RESTL DESIGNERS, CLOUGH HARBOUR ASSOC., AI ENGINEERS, WENDEL
APPROVED BY: KM	DATE: 6/11/2014

DESIGNED BY:
RESTL DESIGNERS, INC.
702 RUSSELL AVENUE,
SUITE 400
GAITHERSBURG, MD
20877



PROJECT TITLE:
**WATERBURY BUS
MAINTENANCE FACILITY
REPLACEMENT**

ADDRESS: FROST BRIDGE ROAD WATERTOWN, CONNECTICUT 06787	PROJECT NO. 0431-0006
DRAWING TITLE: BRACING DETAILS	DRAWING NO. S-602
	SHEET NO. 09.062

